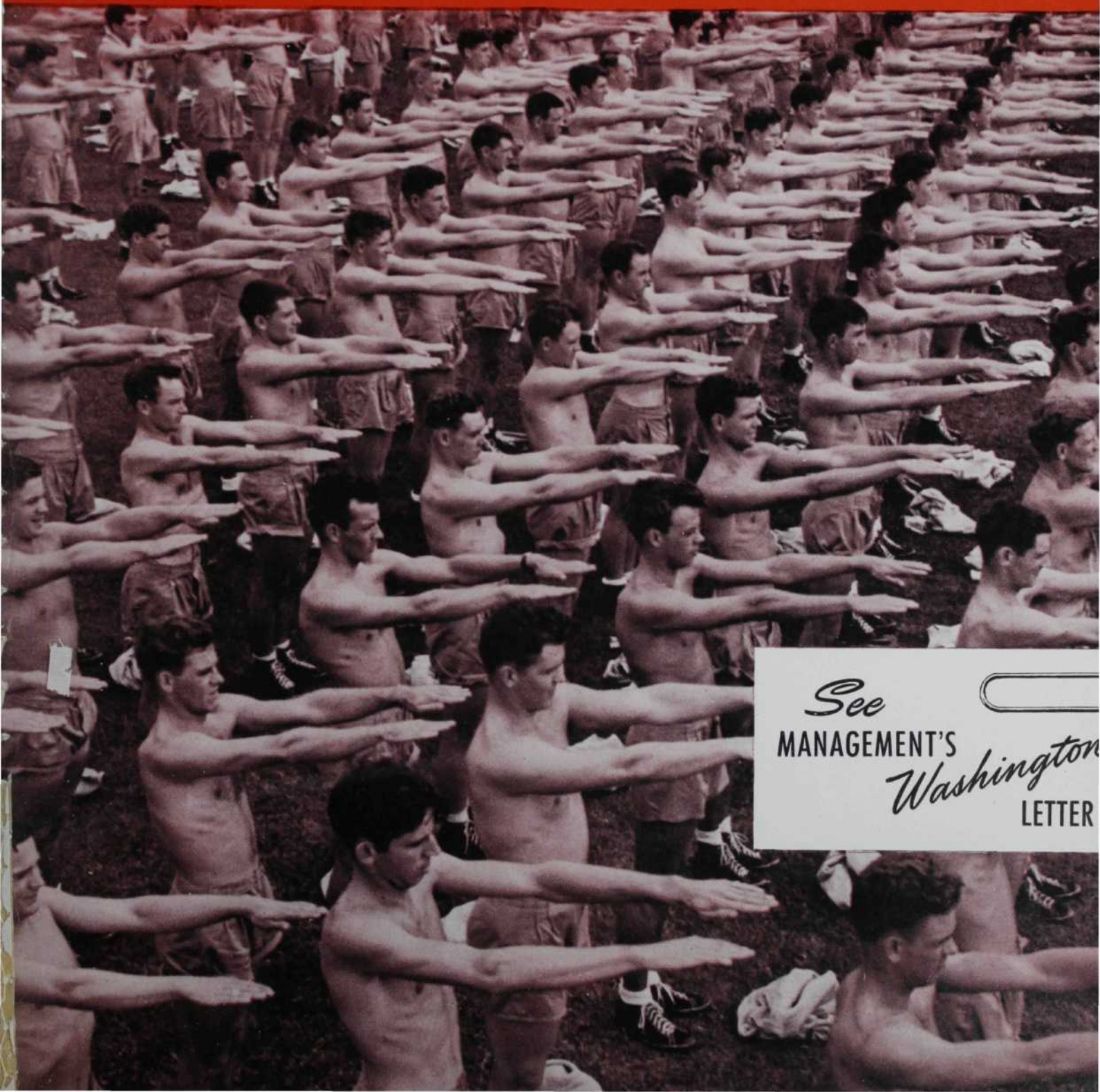
September 1942

NATION'S BUSINESS



See MANAGEMENT'S *Washington* LETTER

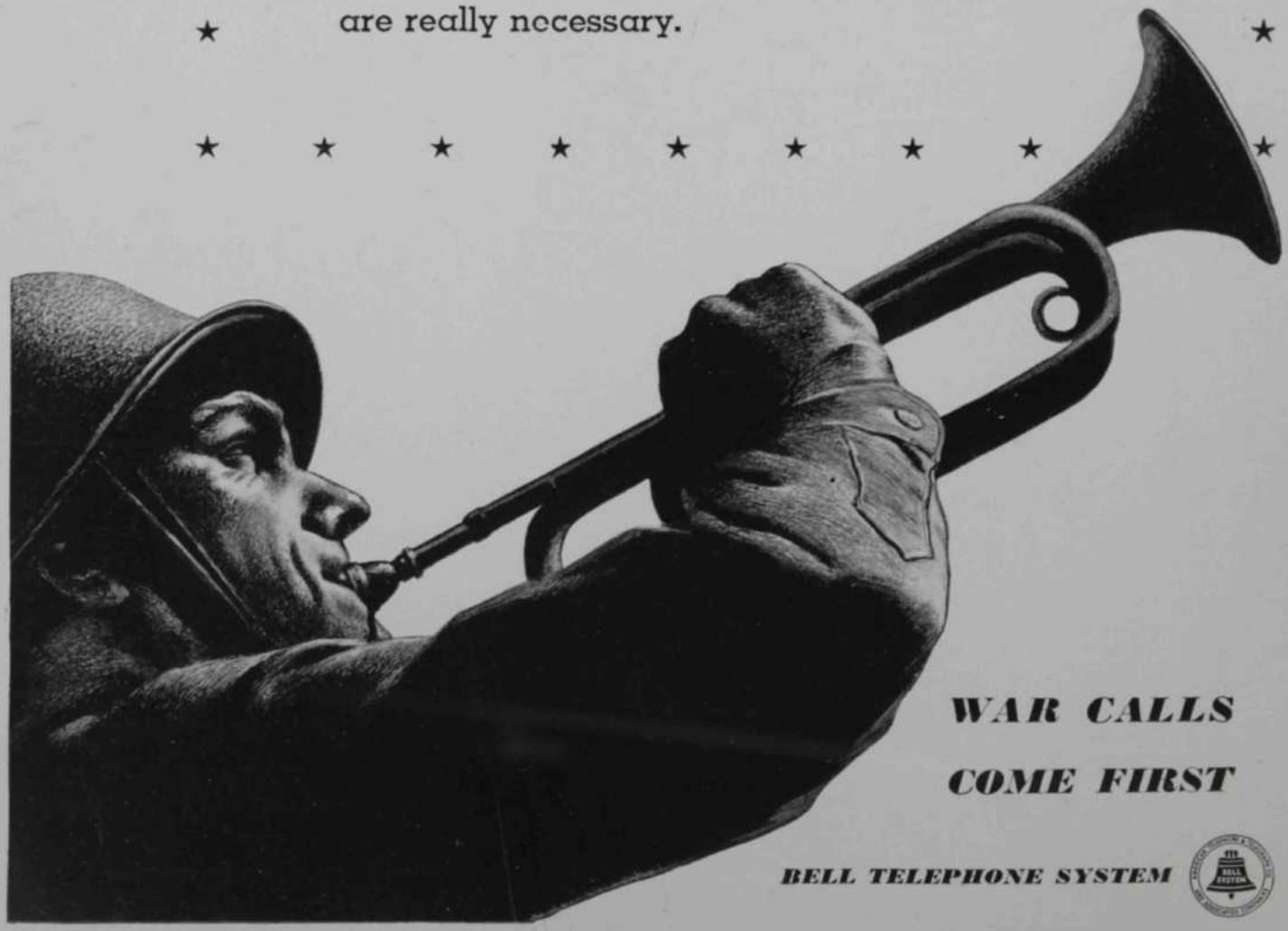
Clear the Lines for the War

Before you make a Long Distance telephone call today, ask yourself these questions:

1. Is it necessary?
2. Will it interfere with war calls?

The weight of war on the telephone lines is heavier every day. We can't build the new lines to carry it because sufficient materials aren't available. We've got to make the most of the service we now have.

Please give a clear track to the war effort by confining your Long Distance calls to those that are really necessary.



WAR CALLS COME FIRST

BELL TELEPHONE SYSTEM



. . . So They Married the Truck and the Train!

A typical example of B. F. Goodrich leadership in truck tires

TAKE a good look at this brand new transportation idea. Truck and train in one, the Auto-Railer combines the leading advantages of both. It's as much at home on the highway as it is on rails—can be shifted from one to the other in a matter of seconds.

But is it practical? Uncle Sam says yes. For today at some of America's largest arsenals, movements of shells and explosives that would ordinarily be handled by truck *and* train are quickly hauled by this unusual unit *alone* with no transfer operation required.

On the highway, B. F. Goodrich tires entirely support unit and load—on rail, the tires support 80 per cent of the total weight, the flanged steel wheels serving principally as guide wheels.

And what about these tires that cushion the shocks? They're *special* tires designed by B. F. Goodrich engineers—tires that give six times more traction on rails than conventional steel wheels. And because of their unusual non-skid tread design, they stop the unit on rails as quickly as you can stop your car on the highway!

Here is just one example of the countless ways in which the research and engineering genius of America's oldest tire manufacturer is serving America's war effort. Yes . . . we've gone "all out" for victory. But that includes supplying *essential* civilian requirements! Today, we're continuing to make—in accordance with government specifications—the very finest truck tires we know how to build to help you "keep 'em rolling."

When you are permitted to buy tires, you can help conserve rubber and at the same time save yourself money by insisting on B. F. Goodrich Speedliner Silvertowns. Speedliners are the *only* truck tires fortified with Duramin, the amazing chemical discovery that keeps rubber young and tough, s-t-r-e-t-c-h-e-s tire life.

See the B. F. Goodrich man *first*, for B. F. Goodrich is First in Rubber.

Free Motion Picture Showing

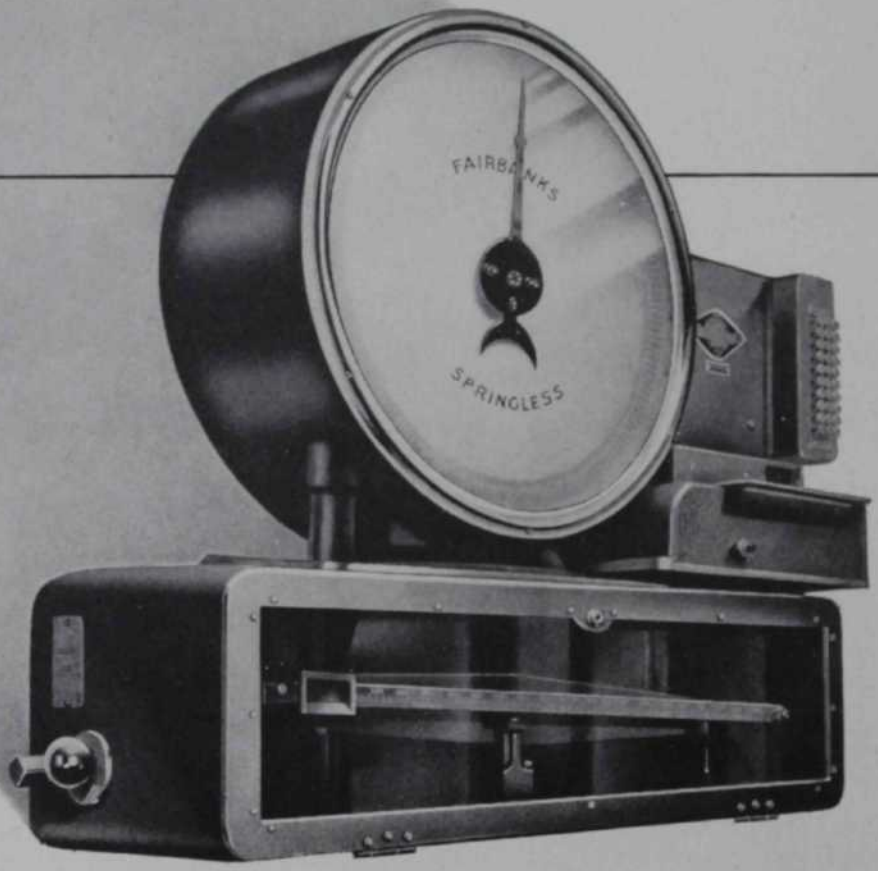
Would you like to arrange a showing to your organization of the dramatic story of motor transportation and its role in America at war? B. F. Goodrich has just completed a 25-minute film called "Keep 'em Rolling" which tells a fast-moving story of transportation today and concludes with helpful information on tire conservation. Write for information giving approximate size of audience. There is no charge for showings. Write Dept. No. T-112, The B. F. Goodrich Company, Akron, Ohio.



★ ★ ★ JOIN THE U. S. TRUCK CONSERVATION CORPS ★ ★ ★

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THESE SCALES HELP UPSET THE AXIS TIMETABLE!



THE speed and accuracy of modern Fairbanks Scales, and their many ingenious applications, are helping rush war matériel production.

Use your priority to get Fairbanks weighing equipment that will not only save precious minutes now but also serve you best in years to come.

Fairbanks scale engineers are ready to help you plan for today with an eye for tomorrow. Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago.

FAIRBANKS-MORSE

FAIRBANKS SCALES

SCALES
DIESELS
MOTORS
PUMPS

A 750-TON WAR STAMP

building Sky Fighters



THIS giant 60 ton press exerts a pressure of 750 tons — shapes stainless steel and aluminum "turtle decks" for our P-43 fighters.

American industry is at work to produce *more* planes and *better* planes than any nation has ever built before.

Quality lubricants are needed for jobs like these. Texaco supplies them from more than 2300 convenient wholesale supply points in the U. S., together with specialized engineering service to insure their efficient use.

BIRDSBORO

THE TEXAS COMPANY

—in all 48 States

TEXACO

Women Join the *"Field Artillery"*

as International Harvester Dealers Teach Power Farming to an Army of "TRACTORETTES"



THE SUN is just over the ridge. Breakfast is just under the belt. The farmer and his helpers sample the breeze as they stand on the back steps, and the farmer says:

"I've got to go into town this morning and I'll be gone a while. Meantime, Emily, you and Ruth might as well start in on the south forty."

Emily? Ruth? Girls? Sure, why not? For Emily and Ruth are Tractorettes . . . and they know their stuff. They'll check their tractors for fuel and lubrication. They'll make those minor engine adjustments they noted mentally last night. They'll roll out early and do a first class job of field work, straight down the rows.

What is a Tractorette?

A TRACTORETTE is a farm girl or woman who wants to help win the battle of the land, to help provide Food for Freedom. She is the farm model of the girl who is driving an ambulance or running a turret lathe in the city. Like her city sisters, she has had the benefit of special training.

Late last winter International Harvester dealers began to train this summer's Tractorettes. The dealers provided classrooms, instructors, and machines. The Harvester company furnished teaching manuals, slide films, mechanical diagrams, and service charts. The girls themselves were required to bring only two things—an earnest willingness to work and a complete disregard for grease under the fingernails or oil smudges on the nose.

They studied motors and transmissions, cooling systems, and ignition. They studied service care. They learned to drive tractors. They learned to attach the major farm implements that are used with tractors. And they were painstakingly taught *the safe way* to do everything.

» BUY WAR BONDS
» TURN IN YOUR SCRAP
» SHARE YOUR CAR

Today, on their family farms or elsewhere, thousands of "graduates" are doing a real job for victory. Tractorettes are doing the work that used to be done by the boys who now are flying bombers or riding the slippery, slanting decks of a destroyer.

Their Tractorette training cost them nothing, except the energy and intelligence which they put into it. The company conceived and launched the program. Its financial costs are shouldered by both the Harvester dealers and the company.

This fall and winter Tractorette training courses will be broadened to meet new needs as they arise. Thousands of new girls will take the course and join the "women's field artillery" next spring, fit and ready for the every-year battle of the land. Until Victory is won, Tractorette training will continue to be one of the important *extra* services gladly rendered by Harvester dealers, as typical American businessmen, to the farmers and to the nation.

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago, Illinois

INTERNATIONAL HARVESTER

LARGEST IN THE BUSINESS FIELD
363,130 A.B.C.

NATION'S
BUSINESS
Chamber of Commerce of the United States

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Cover Photo by Ewing Galloway

VOLUME 30 NUMBER 9



FIRE POWER

keeps rolling to the Front

Every day America's railroads work miracles in the transportation of vital war supplies. There is no time now to wait for new equipment . . . all available rolling stock must *keep rolling*—to speed the shells, guns, tanks, and other war materials to far-flung battle fronts.

Whiting railroad service equipment—designed long before Pearl Harbor—is helping to keep cars and locomotives at work more hours per day, more weeks per year—by reducing the time they must be laid up for repairs. There are hoists that lift 400-ton locomotives . . . drop pit tables for wheel and axle service . . . transfer tables . . . cinder conveyors . . . jacks and locomotive spotters . . . all valuable time-savers in railway maintenance. These are typical products of the American enterprise which is tipping the scales toward victory. Whiting Corporation, 15677 Lathrop Ave., Harvey, Illinois.

WHITING CORPORATION

SOLVING PROBLEMS FOR INDUSTRY

DESIGNERS AND BUILDERS OF TIME SAVING EQUIPMENT FOR
FOUNDRIES • METALWORKING, AIRCRAFT, AND CHEMICAL PLANTS • TRANSPORTATION SYSTEMS

Through the Editor's Specs

When they come back

ON OUR cover page we give you the American youths who are moving out in growing numbers to the battlefronts of the world—to China and Egypt, to the Solomon Islands and Iceland, to the Aleutians and Australia, wherever this global war may call them. In their faces you see little of the light-hearted, devil-may-care spirit that characterized their fathers' march to World War I. They are grim and determined; "there is a job to be done and they are eager to do it and get it over with," as Herbert Corey puts it in his article on Page 42.

Upon these boys we pin our hope of winning both the war and the peace. Our job is to produce for them now what they need to win the fighting, and prepare to welcome them back with jobs and opportunities. American business men are working to do just that. On Page 31 we describe a program for post-war employment which business men, through the National Chamber of Commerce, have prepared.

Dollars over the dam

DISCLOSURES after the last war of almost incredible waste of public funds inspired solemn resolutions to be wiser next time. But, as usual, men learn little by collective experience. Again we are in the midst of war flinging money to the winds with more abandon than in 1917-18.

The House Military Affairs Committee reveals that, in the construction of the Louisiana ordnance plant, the groaning taxpayers were assessed $3,409 for building little ten-foot-square sentry houses just big enough to hold two men. A four-car garage cost $9,425. Several of the buildings at this temporary plant ran to more money per cubic foot than the marble palace that houses the U. S. Supreme Court in Washington.

General MacArthur has reminded his countrymen that "Success in war depends on men, not money." A reasonable sense of the value of a dollar is in no way incompatible with the most aggressive conduct of war.

Wartime best seller

NEXT to letters from home, the most popular reading for soldiers and sailors is still the Christian Scriptures. Figures released by the American Bible Society show that, in the past two years, 11,375 Bibles, 604,792 Testaments and 272,000 copies of other portions of the Bible have been distributed to our armed forces.

Another of the Society's missions is that of spiritual ministering to millions of prisoners of war in Europe. Through its Geneva office large numbers of biblical texts in 25 languages have been sent to men languishing in prison camps and drinking the bitterest dregs of misery. To them the sacred writings are a solace to the spirit as important as food and medicine for the body. This is true even of the Russians and Germans, whose leaders had tried to supplant the Christian religion with their political ideologies and pagan faiths.

The voice of youth

AN ORGANIZATION known as Parents' Institute, Inc., is going to conduct opinion polls among boys and girls from eight to 17. For the right professional flavor, the Institute has retained the two young sons of Dr. George Gallup as consultants.

Tabulations of opinions of boys and girls on such subjects as economic nationalism, bimetallism and Union Now should be sufficiently objective to be quite innocuous. But when it comes to serious matters like the relative merits of baseball and hoeing potatoes as vacation diversions, we are not so sure about the value of such polls to mankind.

Interpreting Washington

SO FAST is the O.P.A. growing that a flourishing new service has been organized in New York specifically to interpret to business its countless "regulations, rulings, schedules, statements of considerations, opinions and methods of relief." "The service the Office of Price Administration itself uses," reads an enthusiastic circular.

For $7 a month a business man can keep himself informed on how to run his business—as far as one of the 90 or more departments and independent agencies of the federal Government is concerned.

Note on salesmen

THE PRESIDENT of the Mutual Life Insurance Company of New York is Lewis Douglas—ex-Congressman, ex-Budget Director of the federal Government and ex-President of McGill University. With the same thoroughness and ability which made him nationally known in his former activities, Mr. Douglas is out to conquer the X in the insurance field. Under his direction, Mutual Life has made a survey of what people think about insurance companies, their products, their personnel.

Already they know insurance rates third as "best place to put money," government bonds and real estate coming ahead, with government bonds not so popular among people more than 40.

They know, too, that 40 per cent of these discerning customers and prospects call insurance agents "nuisances."

Nuisances are people who blow up our excuses and make us do what we ought to do. By our definition, insurance agents qualify as professional men. We classify them with our dentist and our doctor. They keep us in good health and they patiently carry on a long time before hearing us say thank you.

On the home front

AT SHARON, CONN., a farmer parked his ancient truck and when he returned it was gone. He finally found that the local salvage committee had picked up the truck and dismantled it.

Four months after it had sequestered all automobiles in dealers' hands, the Office of Price Administration was appealing to eligible purchasers to come forward, as a patriotic duty, and buy these cars. Some 400,000 new cars are going begging.

As startling proof that unnecessary travel is being curtailed, *Printers' Ink* points to the fact that in May Mrs. Roosevelt set a new low mark in mileage—only 5,525 miles.

Federal housing officials have de-



SIMPLICITY and ease of operating the Mult-Au-Matic are proved by the fact that already in some plants women are taking over men's jobs on these machines. This releases Man Power for the more stringent war efforts.

Mult-Au-Matics are tooled for a specific job and automatically apply the basic principle of independent speeds and feeds at eight stations operating simultaneously. All that is required of the operator is to load and unload the work. As a matter of fact these automatic machines produce as much as several single spindle machines.

Airplane engine builders, tank arsenals, shell body plants and ordnance shops are utilizing Mult-Au-Matics by the thousands for a quicker victory in this war.

Tomorrow these same machines will be helping their owners to quicker victory in peacetime competition.

THE BULLARD COMPANY, Bridgeport, Connecticut

BULLARD

cided that the 114-acre portion of the Maryland estate of a British diplomat, which the Government recently bought for $152,352 as a site for a defense housing project, is not suitable for the purpose. Most of the property is uncut second-growth timber land. Just what the Government will do with it is not known.

A special writer for the Washington *Daily News* reports some of the reasons for the current controversy said to be going on between W.P.B. and the Army and Navy. W.P.B. officials claim: that the Navy still uses precious monel metal (70 per cent nickel, 30 per cent copper) for shipboard urinals; that Navy demands stainless steel for its prison-made mess plates; that Navy insists its brooms must be bound with tin-plated wire, instead of chrome-plated, as suggested by W.P.B.; that the Army was "extremely reluctant" to substitute felt cushions for sponge rubber in its "jeep" seats.

Frozen in Civil Service

SUPPOSE the personnel director of a large store were unable to transfer employees from one department to another except with their own consent. A big "white sale" in the basement is attracting a mob of customers, while trade is dull in the third floor linens and piece-goods department. But none of the third floor force wants to go to the basement, so the manager must hire a temporary sales group for the basement sale.

Sounds silly, but the Senate committee headed by Senator Tydings of Maryland has discovered just that situation in the federal Government. The Civil Service Commission has no power to transfer workers, it can only hire and classify for other agencies. That's why war agencies haven't been able to get the services of trained employees for the emergency from non-essential bureaus, but have had to hire green hands by the tens of thousands.

Senator Tydings has introduced a bill to empower the President to order any transfers from one agency to another that may be desired.

Completely furnished

FINDING adequate housing for Washington's war workers, pouring into the Capital at the rate of 8,000 a week, is about as simple as persuading a pint bottle to hold a quart of milk. After haunting real estate agencies for weeks, a man we know finally was informed that a furnished house was available. A real estate agent escorted him and his wife to the place and they walked in, peered in closets

and cupboards, admired the furnishings, and came upon several cases of whisky in the attic. Our friend said he'd take the place right away, and the agent immediately got in touch with the owner. The reply was that the house already had been rented, and our friend had been touring a home whose occupant just happened to be out at the time. Lucky the occupant didn't come home while our friend was in the attic examining the whisky supply.

Will that red line hold?

THE past may be prologue, but it's also darned repetitious sometimes. A glance over the old files of NATION'S BUSINESS proves the point. Twenty-five years ago, in the issue for October, 1917, we used this headline over an article by Charles Edward Russell, member of the American War Mission to Russia:

That Thin Russian Line—If Germany Breaks It, Her Forces Will Double On the Western Front, and We May Yet Have to Fight Her With Our Bare Hands.

Mr. Russell wrote:

We have gone into this war, it is to be feared, with too little understanding among the people of the tremendous peril that confronts this country. Because—stop to think!—at this moment nothing stands between America and the pit of disaster almost inconceivable, except one thin line of Russian troops! That is all. For, if Russia should be overwhelmed, what follows? Why, that would mean the elimination of Russia from this contest. It would mean the release of a great part of the German troops that are on the Russian line from Riga to Roumania; and they could be hurled in an irresistible mass upon the western front.

Mr. Russell was optimistic about the prospect for continued Russian resistance. The Russians, he said, "fight because it is the will and determination of the Russian people that they shall fight. For in Russia today, the will of the people is absolutely supreme. Everything for freedom depends upon the will of the Russian people at this crisis."

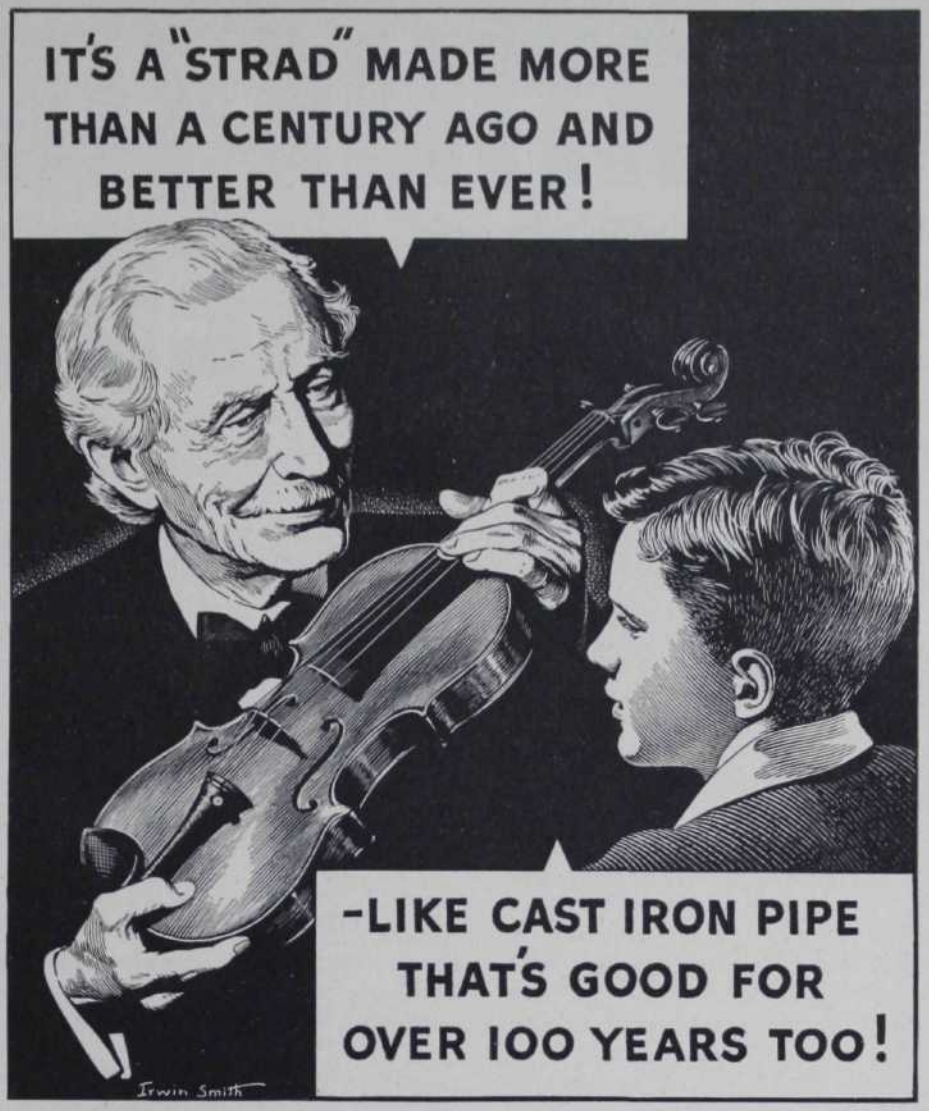
The analogy is striking but incomplete. Russia today faces a tougher Germany than in 1917, but Germany has met a Russia united, resourceful, immeasurably stronger.

And, in the West, an implacable enemy is tensing itself for another analogy—1918.

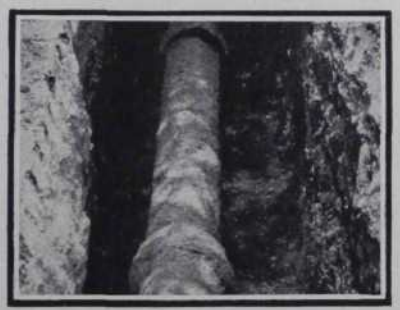
War brides

IN NEW YORK a physician's maid quit to keep house in her own home. Her husband is making $26 a day pouring cement.

In Pensacola, Fla., a plasterer came into a tony jewelry shop and paid $100 for a diamond wrist watch for his wife. Next day his wife brought it



COMPARING a violin to cast iron pipe may seen incongruous—yet both have this in common: violins made by Stradivarius of Cremona more than 200 years ago are used and treasured by great artists today; and cast iron pipe, made in France 270 years ago, is still in service. Cast iron pipe serves for centuries. Its *proved* useful life is at least double the *estimated* life of other pipe used for water, gas or sewer mains. Costly replacements that would be necessary with shorter-lived pipe are avoided by the use of cast iron pipe. It can be salvaged or re-used. It is the only ferrous metal pipe, practicable for underground mains which rust does not destroy.



Unretouched photograph of more-than-century-old cast iron pipe still serving and saving taxes in Lancaster, Pa.

Pipe bearing this mark Q is cast iron pipe

Available in diameters from 1¼ to 84 inches.

CAST IRON PIPE No. 1 Tax Saver

CAST IRON PIPE RESEARCH ASS'N, T. F. WOLFE, RESEARCH ENGINEER, PEOPLES GAS BLDG., CHICAGO

WARTIME LIGHTING COSTS REDUCED!

General Electric announces a 12% to 17% reduction in the price of G-E MAZDA FLUORESCENT LAMPS!

Effective September 1, 1942

NEW LOW PRICES ON G-E MAZDA F LAMPS

14-WATT T-12	was	80c	now	70c
15-WATT T-8	was	65c	now	57c
15-WATT T-12	was	80c	now	70c
20-WATT T-12	was	80c	now	70c
30 WATT T-8	was	80c	now	70c
40-WATT T-12	was	$1.15	now	95c
100-WATT T-17	was	$2.60	now	$2.15

Above prices refer to daylight and 3500° white. Prices also reduced on soft white and colored G-E MAZDA F lamps.

Also reduced! G-E MAZDA H (Mercury) LAMPS

400-WATT T-16 AH1	was $11.00	now	$9.50
400-WATT T-16 BH1	was $11.00	now	$9.50
3000-WATT T-9½ AH9	was $45.00	now	$40.00

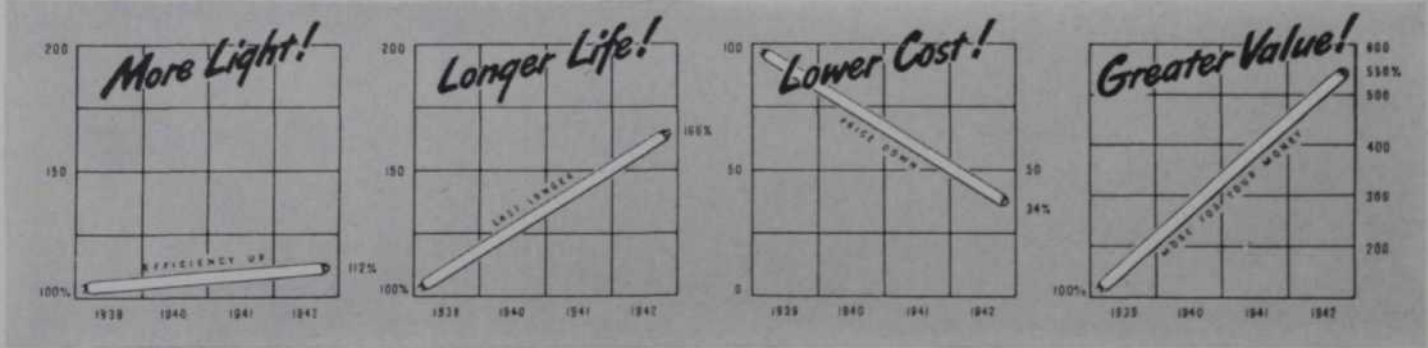
THE SEVENTH REDUCTION IN FOUR YEARS!

NO price reduction, of the many we have been able to make, gave us in General Electric as much genuine satisfaction as this one—made possible at a time when light is being called upon to play a major role in wartime production.

Made in the face of rising cost trends, this reduction is the result of manufacturing economies and technical developments, combined with vastly increased use. It is made in accordance with G-E's policy of passing such savings along to customers.

But lower prices are only half the story. Not only have we been able to reduce prices, we have steadily improved these lamps. They give more light! They last longer! They *stay brighter longer!*

For instance, purchasers of the widely used 40-watt white G-E MAZDA F lamp now pay only 95c instead of the $2.80 they paid in 1939. But we are prouder that this lamp lasts 66% longer and is nearly 12% brighter . . . that it gives you 5½ times more value for your lamp dollar than it did in 1939! (See charts below.)



G-E MAZDA LAMPS

GENERAL ELECTRIC

back and exchanged it for a better watch costing $50 more.

It's a reminder that not even Huey Long or Dr. Townsend could think up a better scheme than a modern war for redistributing the wealth. Economically speaking, "the first shall be last and the last shall be first."

Don't forget brass bands

FEARING that shortages in critical materials might cause disappearance of that great American institution, the brass button, we inquired at the War Department. The answer is that the brass button will not vanish from Army uniforms, but it will be more button than brass.

The Army has cut down the quantity of brass used per button, with a total saving estimated at 400 tons of brass annually. Today's uniform buttons have a steel re-inforced back and only a thin coating of brass. But, according to the War Department, no adequate substitute for brass has yet been discovered for the eyelets of soldiers' brogans which one day will be kicking the Axis around.

Gate to Mecca

THE REAL crossroads of America is the concourse at the Union Station in Washington. Through those portals pass more persons on more weighty missions than anywhere in the 48 states.

When the Union Station was built it was made large enough to handle the big crowds once in every four years, on Inauguration days. Most other times it was vast, cavernous and relatively empty. Now it moves more passengers every day—Tuesdays and Wednesdays excepted—than the largest Inauguration crowds.

We learn from the Association of American Railroads that the daily flow is between 70,000 and 100,000. That's like feeding the whole population of St. Joseph, Mo., or Lawrence, Mass., through one building every day.

Within the past 18 months the number of ticket windows has been increased from 15 to 51; trunk telephone lines from 30 to 50; information clerks from 69 to 266.

Only five per cent were Japs

OUR APOLOGIES to California tuna fishermen for the statement that most of them were Japs. ("A Full Abundance of Scarcity," August number.)

George A. Wallace, vice president of the American Fishermen's Tunaboat Association, says only five per cent of those who man the tuna fleet were Japs.

Of course the Japanese are all in concentration camps now. Tuna fishermen are sensitive on this point and we don't blame them. We gladly make correction.

Word tonnage records

SENATOR LaFollette objects that the Byrd Committee took only 50,000 words of testimony on N.Y.A., C.C.C. and W.P.A. spending. Hence he deplores the Committee's economy recommendations for their haste and brevity.

The Senator does things differently, himself. His father made the longest speech ever delivered in the Senate and Bob Jr. has sponsored the longest committee report. The hearings of his subcommittee investigating free speech and the rights of labor now stand at 75 volumes, 27,808 pages.

How one war surplus was used

HODGMAN Rubber Company of Framingham, Mass., was one of those small or medium sized concerns that rubber rationing threatened to put out of business. For many years it had coated fabrics, primarily with rubber, for rain and sports wear and in the hospital and certain industrial fields. Fortunately the company had investigated before the war the possibilities of using vinyl acetal plastics—a synthetic resin resembling rubber—as an alternate for waterproof fabric coating.

The snag encountered in this experiment was the heavy demand for vinyl acetal plastics in the making of safety glass, which rendered the material practically unavailable. But, when the manufacture of passenger cars stopped, that released plenty of the plastic. Now Hodgman is making a new fabric coating said to excel rubber in many ways.

For those who look closely enough, there is usually some way around, even now.

You can't keep 'em down

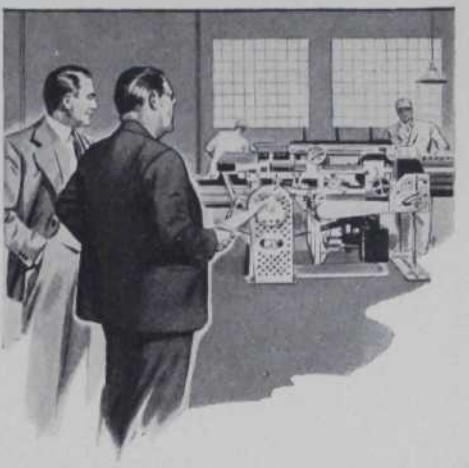
THE OTHER day a friend of ours saw a salesman, on his arrival in an upstate New York town, parking his car and unstrapping a bicycle from the top.

In answer to a question, he said: "I call on most of the retailers in my territory. I can get just enough gas to go from town to town, then I make my rounds on this second-hand bike."

The same informant told us about another knight of the road who doubles up with the salesman for a noncompeting line. One week they use his car, next week his friend's.

American ingenuity cannot be rationed.

We're helping manufacturers help each other



A war-time service for those who need WRAPPING MACHINES

ONE well-known company in the package goods field recently obtained ten wrapping machines from another package goods manufacturer through information supplied by one of our branch offices. Other concerns have obtained from one to two machines each as a result of our assistance.

We are rendering this service gratis because we cannot deliver new machines except to those who have high priorities. *And even then our war work makes early delivery difficult.*

If you need a wrapping machine, tell us its *type* or *send us a sample of the wrapping* you wish it to do. We'll try to find a manufacturer who can sell or lease you one of our machines that will suit your purpose. We'll also give you information about obtaining the necessary approval from Washington.

We do not buy or sell any of these machines — merely bring the interested parties together.

Write or phone our nearest office

PACKAGE MACHINERY COMPANY
Springfield, Massachusetts
New York Chicago Cleveland Los Angeles Toronto



"STEP LIVELY" IS THE WORD

DURING 1941 the railroads moved the greatest volume of freight in their history.

In the first 6 months of 1942 they carried 36% more than in the same period of history-making 1941.

One reason the railroads have been able to do this has been the all-out cooperation of shippers.

Cars have been loaded heavier, sent away faster, emptied quicker.

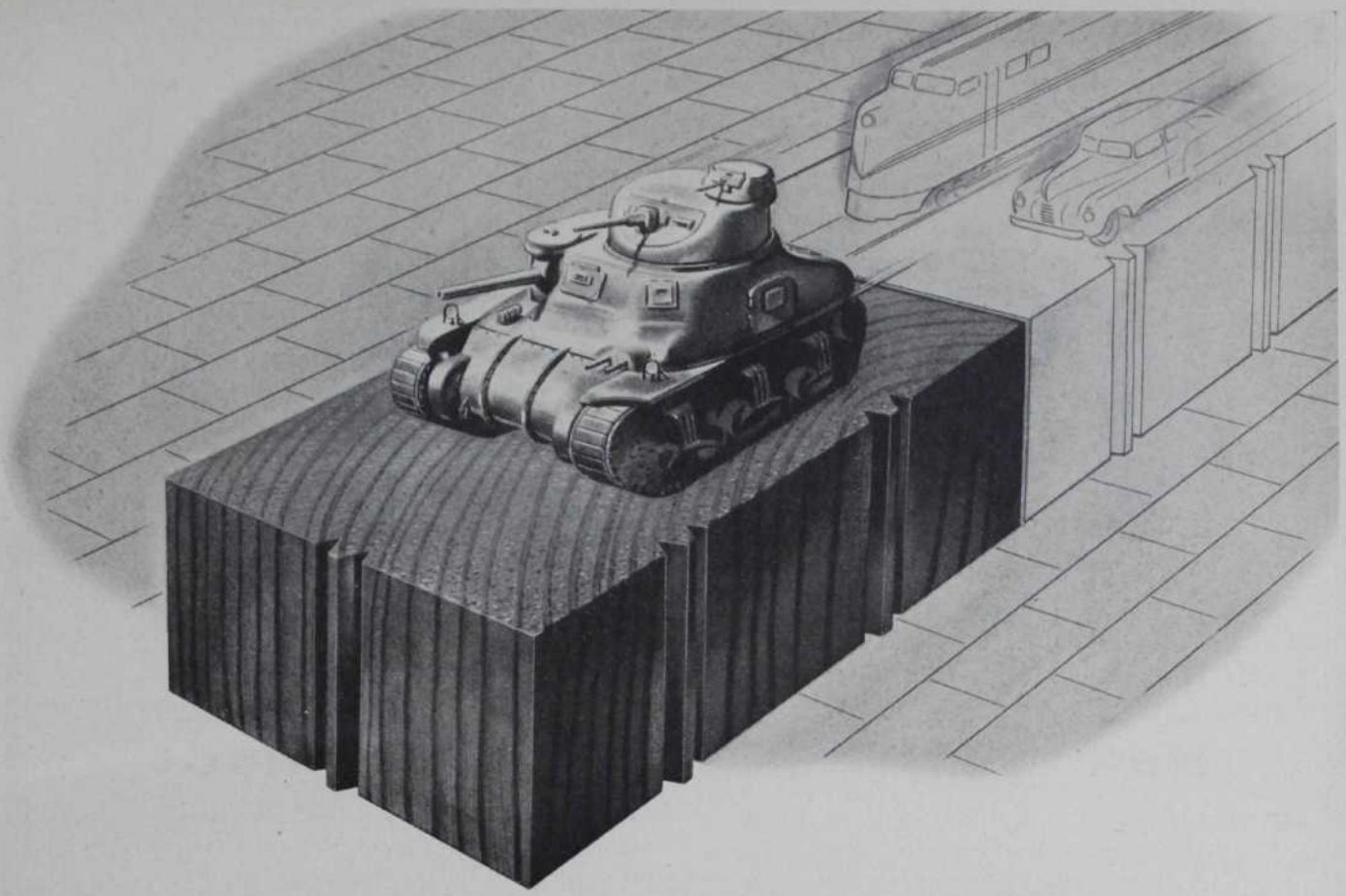
This is important. For to carry everything the Government, Army, Navy and Business have to haul, cars have to be kept moving.

So you see why there's no room for sleeping shipments. It's transportation we have to deliver—someone else will supply the storage accommodations.

And so to keep war equipment, foods and commercial goods on the move, "step lively" is the word.

"The first World War taught the Government and the railroads and the public a lesson they will never forget. First, that those experienced in transportation can better conduct transportation than the Government or any inexperienced agency. Second, that railroad cars are never to be used for storage, but for transportation. Nothing shall be put in a car that cannot be immediately dispatched and unloaded at destination."—COLONEL J. MONROE JOHNSON, *Member of Interstate Commerce Commission in Charge of Bureau of Service.*

ASSOCIATION OF
AMERICAN RAILROADS
WASHINGTON, D. C.



DOES YOUR FACTORY HAVE A *Future*?

Scores of companies all-out today have fortified their plants for tomorrow with a KREOLITE Wood Block Floor. In war or peace, efficiency and low maintenance are always important production factors.

With KREOLITE Wood Blocks, maintenance is simple arithmetic. For example, one installation made in 1923, covering more than 325,000 square feet, has required only $500 worth of repairs — a small price for 19 years of service.

KREOLITE Blocks demand little attention. Your maintenance men can handle changes necessitated by relocation of machinery. Periodic resurfacing with KREOLITE *Jennite* will keep your floor in peak condition indefinitely. The first KREOLITE Floor installed 31 years ago is still in daily service.

The resiliency of Southern Pine is responsible for the comfort of KREOLITE Blocks, and of course, they incorporate the other advantages of wood such as sound absorption and insulation against heat and cold.

For durability beyond the duration, specify KREOLITE Wood Block Floors. Your Jennison-Wright flooring engineer has maintenance case histories for your study.

THE JENNISON-WRIGHT CORPORATION
TOLEDO, OHIO • *23 Nation-Wide Offices*

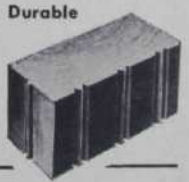


KREOLITE Wood Block Floors stand up under the heavy pounding of steel-wheel trucks at this Pratt & Whitney Plant, West Hartford, Conn. *864,276 sq. ft. installed since 1939.*

★ ★ ★

Specify **KREOLITE..Accept No Substitute**

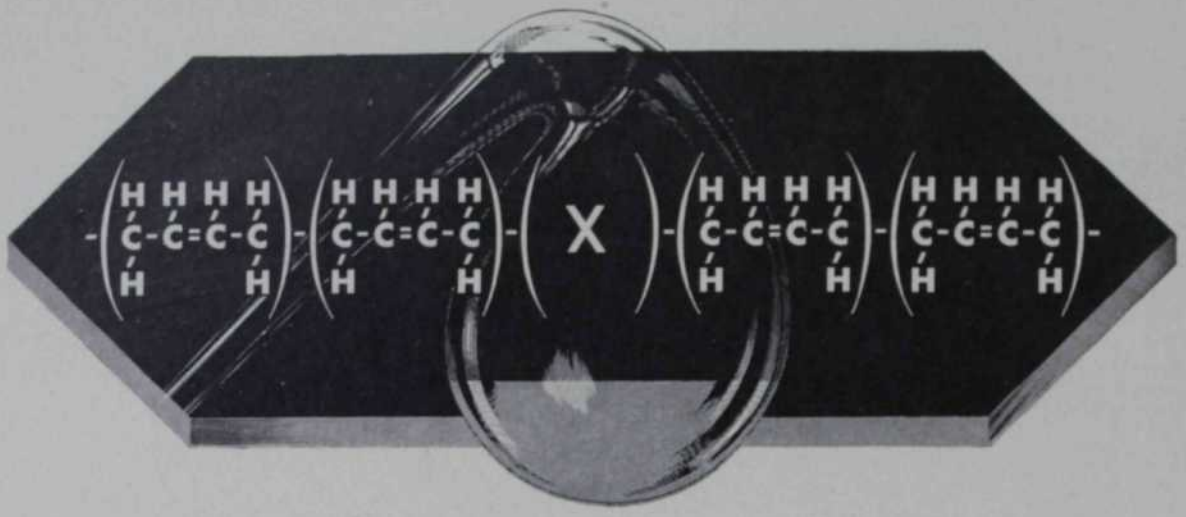
Comfortable To Work On • Dustless, Easy to Clean
Absorb Noise, Cut Vibration • Low Maintenance
Protect Dropped Tools and Parts • Durable
Spark-proof, Skid-proof, Safe
Firm Base for Machines
Quick to Install, Easy to Replace
High Insulation



KREOLITE WOOD BLOCK FLOORS

KREOLITE RAILROAD SWITCH & INDUSTRIAL TRACK TIES • PILING • BRIDGE & DOCK LUMBER

ONE OF A SERIES OF INFORMATIVE TALKS ON A CRITICAL MATERIAL



How SYNTHETIC RUBBER is made

THIS formidable chain of symbols is the chemist's formula for one of the oil-resisting synthetic rubbers known as Chemigum, made by Goodyear.

In natural rubber a somewhat similar long-chain grouping of carbon and hydrogen atoms is accomplished by nature. In synthetic rubber, the trick is to combine the right molecules by a complicated chemical process called polymerization.

Many organic materials lend themselves to this process. Coal, grain alcohol, acetylene, petroleum, natural gas and other hydrocarbons can be used. With each, the method of treatment differs, and the resultant products vary greatly in rubber-like characteristics.

Thus in synthetic rubber manufacture far greater responsibility for quality rests upon the experienced skills of the chemist and compounder than in working with natural rubber.

Our first patent covering synthetic rubber manufacture dates from 1927. Since then we have tested more than 300 different compounds in search of a synthetic that would duplicate or better rubber's desirable properties.

Of all these, Chemigum proved best. It can be compounded to excel natural rubber in withstanding wear and abrasion—or made more resistant to oxidation, extreme cold, gasoline and oil. Its chief shortcomings are handling difficulties in manufacture and, as yet, high cost.

For the past four years Goodyear has been using Chemigum commercially with great success in many specialized industrial products where its marked superiority over rubber offsets higher price.

Under the urgency of war, new, low-cost, mass-production methods are being rapidly accelerated in cooperation with the government program. Just as soon as sufficient supplies of this miracle material are forthcoming, Chemigum can, if necessary, be used for virtually every purpose now served by natural rubber.

CHEMIGUM

THE GREATEST NAME IN RUBBER

GOODYEAR

Chemigum—T. M. The Goodyear Tire & Rubber Company

Nation's Business SEPTEMBER 1942

Task Forces of the Home Front

BEHIND the fighting lines is the vital home front, the mobilization of which, all agree, is necessary to victory. We boast, and rightly, of our use of mass production and its conversion to munitions. But we hear too little of our traditional use of local agencies in accomplishing national objectives.

When the British several years ago sent a Commission to this country to study conditions, it expressed to Parliament its amazement in finding, among other things, how American business men work together in communities and by industries, "pooling their resources, exchanging experiences, on the unique principle that, if a community or trade is prosperous, each unit would share in the prosperity."

One of Italy's great industrialists was discussing Europe's grave problems a few years ago when he stopped short to exclaim, "Oh, if we could only pull together as you do, in voluntary effort." Then he added, rather sadly, "We lack your opportunity for voluntary organization." At that time, if more than six citizens came together in Italy for, say, luncheon, a report of the meeting had to be made to Il Duce. No freedom of assembly, no opportunity.

America has a distinct flair for teamwork. It is born and bred in our bones—fighting Indians, town-meetings, kids on a baseball lot. "Appoint a committee," "organize teams," "all together and we'll put it across." In fire, flood, tornado, dislocation of any kind, local effort has taken hold and prevailed. Recall gasless Sundays, Liberty Loan selling, heatless Mondays, corn-bread?—an all-out voluntarism carried through. It was the only way we knew how to do it.

Recently this nation has been exposed to an alien disease, the "efficiency" of federal direction and control. For the many problems of the past ten years, real and fancied, local and personal, this new doctrine sired a phrase, "Let Washington Do It," a phrase hitherto unknown in America's lexicon. Unfortunately, this spurious substitute for local responsibility is being carried over into the war days, with wasteful duplication of energies. Federal boards are supplanting the traditional local agencies. There will follow, as the night the day, compulsion instead of persuasion, and a loss of that priceless American ingredient, personal and local enthusiastic responsibility. The war thus becomes Washington's business.

We hear too often nowadays that, to fight Hitler and Tojo, we should adopt their methods. It is said that democracy is too soft with its people. Mussolini once told the writer just that. So, it is said we should get tough with them, make 'em sacrifice, crack down. That, it is contended, is the way to fight totalitarianism.

It all sounds plausible. Many of us, unthinking, accept the idea. Public opinion, as a result, accepts moves in that direction. Indeed, some see us at a half-way point where we wage war neither using to the full the virtues of the voluntary effort of democracy, nor the vicious authority over the individual of a Nazi despot.

As a contribution to a reborn recognition of local voluntarism we present in the following pages, "How Main Street Goes to War." Greater encouragement to such voluntary organizations on the part of those conducting the war, and less federal competition with them will greatly help in mobilizing the civilian forces of the nation.

Merle Thorpe

Another Example of How Truck-Trailers Are Aiding America!



Ralston Purina Solves Two Tough Hauling Problems
. . . and Contributes to Victory!

RALSTON PURINA COMPANY, St. Louis, makers of breakfast cereals and stock and poultry feeds, have an important part in the task of feeding America.

A few years ago, this company saw in Truck-Trailers the possible solution to one . . maybe two . . difficult hauling problems. One of these was the run from the mills in St. Louis to the big warehouse in East St. Louis . . five miles through heavy traffic and across the busy Municipal Bridge. The other problem was the economical distribution of Purina products to dealer-customers in many territories.

Trailers immediately handled *both* of these jobs so well that Ralston Purina now has a fleet of forty-seven . . all Fruehaufs!

Today, moreover, Ralston Purina's Truck-and-Trailer combinations are paying *extra dividends* that weren't even remotely anticipated when the equipment was purchased . . *dividends to America at War!*

FIRST—FEWER TRUCKS ARE REQUIRED, because the "shuttle system" is used in the haul from mill to warehouse. Two trucks handle five Fruehauf Trailers. Each truck is constantly busy pulling a Trailer while the other Trailers are being loaded and unloaded. No waste of time or equipment. Two motor units actually do the work of five!

SECOND—SMALLER TRUCKS ARE USED. For much of its distribution from mills and warehouses to dealer-customers, Ralston Purina uses economical 2½-ton rated trucks, pulling Fruehauf Trailers with 10- and 12-ton loads. Heavy-duty trucks, large enough to *carry* such loads, are freed for military work for which they are indispensable.

THIRD—GASOLINE IS CONSERVED. The smaller trucks use less gasoline than would heavy-duty trucks, despite the fact that they haul even bigger loads. Moreover, there are fewer trucks to use gasoline!

So . . Ralston Purina handles its work better and more economically with Truck-Trailers . . and America profits, too!

World's Largest Builders of Truck-Trailers

FRUEHAUF TRAILER COMPANY • DETROIT

Sales and Service in Principal Cities

CONSERVE RUBBER AND STEEL, TOO!

● A Truck-and-Trailer combination, with a load capacity of 11 tons, requires 1180 pounds of tires. Two trucks, with a total carrying capacity of 11 tons, require 1416 pounds of tires. Thus, for the same load capacity, the Truck-and-Trailer uses 236 pounds less tires—a saving of 16.6%.

● The empty weight of the above Truck-and-Trailer combination (less tires) is 12,417 pounds. The empty weight of the two trucks (less tires) is 16,638 pounds. Thus, for the same load capacity, the Truck-and-Trailer uses 4221 pounds less steel and other essential metals—a saving of 25.3%.

FRUEHAUF TRAILERS

"Engineered Transportation" REG. U. S. PAT. OFF.

Has the war created new problems in your hauling operation? The trained, experienced, practical men at the Fruehauf branch nearest you will be glad to help you if they can . . and they probably can. No obligation at all. That's their principal job these days. Just write to us.

How Main Street GOES TO WAR

By PAUL McCREA

ON A CERTAIN Monday in April, the War Department held a conference in Washington to discuss the location of a new chemical warfare plant. Several possible sites were mentioned.

"How about Denver?"

"Well, who knows about Denver?"

No one knew. So they telephoned the Denver Chamber of Commerce.

The information the War Department wanted ticked in by telegraph Tuesday morning.

At 5 o'clock Wednesday morning, a commission of Army officers reached Denver. They breakfasted with men who knew the answers to specialized questions. Then, they visited the proposed site, had a further discussion, and left Denver at noon.

Another conference was held—11 hours of conferences altogether. Result:

On May 23, the Denver site was chosen for the chemical arsenal, the largest single war-production project in that section.

We have boasted, quite properly, about the transformation of our productive capacity from a peace-time to a war-time footing. It has been a miracle of industrial know-how.

But we have perhaps paid too little attention to another kind of equally important know-how which America possesses—the ability to answer accurately and *to act immediately in the local community*—as Denver did—to make our whole war effort click.

This ability to act effectively in every corner of the land is the result of voluntary local organization.

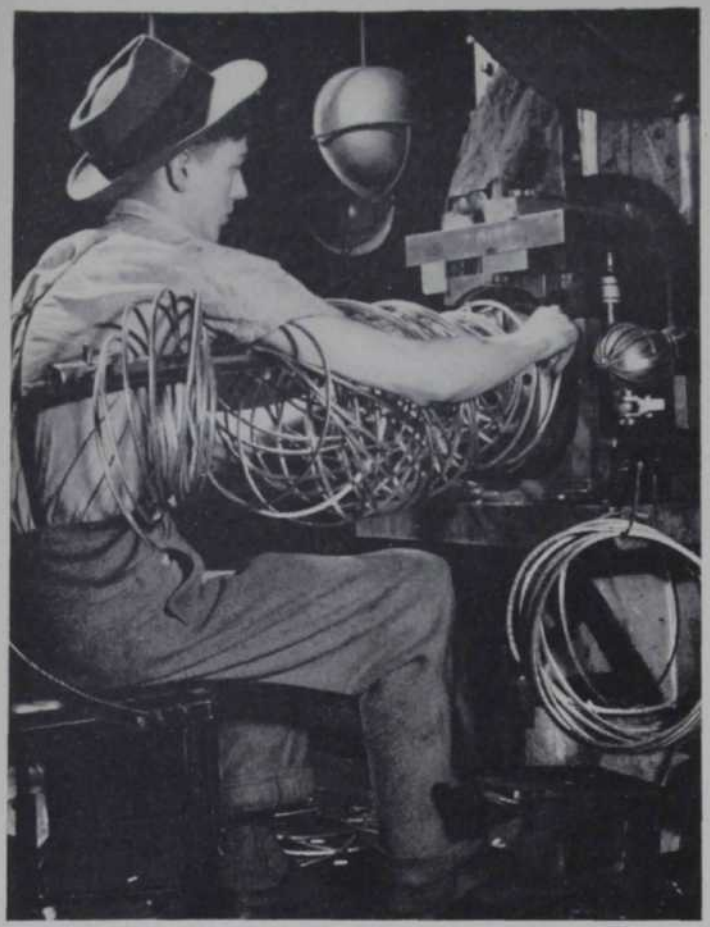
The local voluntary group is one of the manifestations of democracy.

For years, these local organizations have been advancing the interests of their communities—a self-imposed chore which has given them knowledge



CRANE FROM BLACK STAR

They turn out to see heroes, but the home towns do more than cheer. They turn out just as eagerly at every call for service



O. W. I. PHOTO

Local surveys showed machines and skills, proved that an auto radiator plant could help make steel helmets

of local capacity for any job, and skill in mobilizing that capacity for the need at hand.

Without this particular kind of know-how, our country might remain the greatest *potential* producer of arms in the world. But potential guns shoot down no enemies.

Without local voluntary organizations, this country's war production might be the dribble our enemies expected, rather than the flood that surprises even us. Rock Island, for instance, with its enormous farm implement plants, might be standing idly by, wasting valuable machinery and trained men.

Things were headed that way. Lack of materials was threatening production in the machinery plants when the voluntary organizations of Rock Island, Davenport and Moline combined to show the tri-City's possibilities to War Production Board officials. Now $100,000,000 worth of war equipment is coming from that area.

Had we been as economically unorganized as we were militarily unprepared, Jap treachery at Pearl Harbor could have thrown us into a turmoil from which, most likely, we would have recovered too late. As it was, although the guns and planes were not ready, the machines to build them were catalogued and spotted.

In New Britain, Conn., a defense Council had been active for nearly a year and a half. In Tulsa, the Chamber of Commerce began thinking in terms of defense and war production as early as 1939.

Almost two years before Pearl Harbor, the Philadelphia Chamber of Commerce had formed an Industry Defense Committee with the idea of fitting Philadelphia industry to national defense needs. This committee brought top officials from Washington to discuss problems of production and military needs with more than 1,000 business men. It made a complete survey of man and machine power in the Philadelphia area.

In Atlanta, the Chamber of Commerce offered its complete facilities to the defense program in June, 1940. In September, 1940, Seattle business men, through their Chamber, set up a National Defense Committee. By March, 1941, the Peoria Chamber had completed a survey listing and describing the machinery in all the small plants in its community.

The Oakland, Calif., Chamber's National Defense Committee—now the War Activities Committee—was organized in the summer of 1940. In the same year the Baltimore Association of Commerce held its first "defense forum."

Voluntary groups elsewhere were equally active. Throughout the country, men who knew production, who knew materials, who knew how to get things done, were meeting voluntarily night after night, surveying, organizing, coordinating. It wasn't spectacular and few would have found it exciting. A lot of sweat and dry figures and bad oratory went into it. But by Dec. 7 an important job had been done.

The Allentown Chamber of Commerce had ready a survey showing every factory, small machine shop, cement company and garage with equipment that might help the war effort. The Roanoke Chamber of Commerce, through conferences and clinics, knew who could handle prime contracts, and who subcontractors might be.

Government agencies, through contacts established by the Columbus Chamber, knew where to find qualified producers immediately, while, without leaving Washington, other officials seeking metal working plants could turn to a classified report prepared by the Utica Chamber and already on their desks.

How complete those surveys were is demonstrated by the one prepared by the Kankakee, Ill., Chamber of Commerce. On 158 pages of letterhead-size paper it answers every possible question about local plants from buildings, railroad sidings and labor supply to kind and age of machines and working tolerances.

Moreover, Chamber staffs everywhere knew the answers to questions about priorities, personnel, defense contracts. They had learned them, because, as one of their members says, "They were always looking for trouble." When it came, they asked for more.

The Wichita Chamber offered its entire staff and facilities to the National Defense Council. Others lent personnel and office equipment to hard-pressed government men in their communities even when enlistment or selective service left their own staffs short-handed.

Local workers accepted war jobs in fields so variegated that one of them, waving his arms at the mounting stack of questions on his desk, recently remarked:

"We know everything about everything."

He intended that remark as self-deflating hyperbole. It was *not* so exaggerated, at that.

1 ★ Mars, What Do Ye Lack?

"Why should we take over?" Three went away, one stayed. $2,000,000 worth of orders. They found unusual tools. Keeping factory lights on. "We found no red tape." From novelties to airplane instruments. Clinics on priorities

FRANK SHAW, of the Atlanta Chamber of Commerce, answered the telephone.

"We're out here at the plant," a bored voice said. "You'd better grab all the dope you've got and come out and tell us why 'n hell we should take over."

As Secretary of the Industrial Bureau, Shaw was used to such requests. He got his hat, gathered up his dope and showed them why 'n hell. Now, instead of an idle automobile body assembly plant, Atlanta has a plant producing war materials.

The auto assembly plant was employing 1,500 men when auto production was frozen. There went 1,500 jobs. It was bad for morale, bad for the city, bad for war production. But the Atlanta Chamber had been planning for that moment—and a lot of similar moments—for a long time. It knew what machines were available in the closed plant, and it knew 12 companies handling war orders who might use such machines. The 12 companies were not very much interested but four sent representatives to have a look. Three of the lookers went away again but Frank Shaw and his data convinced the fourth.

Now the body plant will employ three times as many workers as it ever did.

Let's see what we can do

Frank Shaw is not the only man who can grab his hat and get there with the dope when somebody has to be shown. When the bottom was falling out of the Maginot Line, Arthur G. Drefs and Tom Dysart, vice president and president of the St. Louis Chamber of Commerce, had a discussion. The times did not lend themselves to quiet planning but the St. Louis men knew that eventually something was going to want doing. They prepared to do it.

Shortly they had organized a committee—the Metropolitan Committee on Preparedness for National Defense—made up of leaders from the St. Louis industrial area. This group conducted a survey, the first of its kind in St. Louis—by some accounts, the first anywhere.

Manufacturers were asked for information as to what products they could make, what machines they had, how much additional space was available, present production, present capacity, labor situation.

Within two months, bound copies of this survey, covering 1,200 plants were in the hands of procurement agencies. By the time this country was ready to start its defense program, St. Louis knew what it could do. Roughly, it could handle $2,000,000,000 worth of war orders.

St. Louis has had other surveys since. Other cities have had them, too: Boston and Philadelphia, where special efforts were made to bring small plants into the war production fold; Indianapolis, where so many scarce and unusual machine tools were unearthed that requests for help in locating facilities came from the Canadian border and the Gulf of Mexico; Toledo, where the Chamber's men "had frequently been on the job of filling the Government's needs longer than the government representatives who came to see us."

This accurate knowledge of the community's machines has not only increased war production—it has kept many firms in business when priorities, lack of material or lack of customers might have closed their doors.

In Quincy, Mass., a certain manufacturer was rapidly going out of business because of lack of material. The local Chamber's executive secretary joined him in a ride to Washington. Although they had no appointments with anybody, they got in to talk with O.C.D. officials and with the Navy Department. They returned to Quincy at 5 p.m., in time to read telegrams from Washington saying the manufacturer had a federal license to manufacture civilian defense arm bands.

The Quincy Chamber is inclined to discount disgruntled reports of Washington red tape.

"We can honestly say that the cooperation from the department heads in all branches of the federal Government has been as fine and businesslike as that of any private business."

In further evidence, they offer the experience of a small yacht builder with whom Chamber officers called on the Navy Department. Soon he was making small boats.

Such turnarounds are not uncommon. In Allentown:

> One large industry, formerly producing mining machinery is now turning out gun carriages; another producing motor trucks and buses now manufactures tank transmissions. A small plant, formerly producing air-conditioning equipment, is now making guns and bombs; another plant, which used to make metal novelties, has converted to the production of airplane instrument panels.

Other cities show transformations equally remarkable. In Grand Rapids, Frederick H. Mueller, president of the Association of Commerce, was urging manufacturers to get into war production long before O.P.M. officials were intimating that priorities might make it impossible for industries to continue their regular lines.

"It's a selling job, the same as selling to your domestic accounts," he preached over and over. "The business is there, but you've got to go after it. Nobody will hand it to you on a silver platter."

The Association helped make the transition easier by contracting for blueprints of the materials on which bids were desired. It got O.P.M. to designate Grand Rapids as a critical defense area. It sent a committee representing labor and management to Washington. It held "clinics" where manufacturers might meet government representatives and finally, formed a "group resources unit" in which manufacturers pooled their facilities for joint bidding on large war contracts or subcontracts.

The clinic and the pool technique have proved invaluable as quick methods of getting work started. Of the former, one of the first was held in Worcester, Mass., where, in one day, the Chamber brought together some 1,500 potential subcontractors and about 100 prime con-



KEYSTONE

Conversion of men was as important as converting plants but communities had seen it coming, knew what to do



COSMO-SILEO FROM BLACK STAR

Round the clock production cannot afford interference from saboteurs, air raids or just plain carelessness. Trained guardians are alert to protect against all three

tractors. About $5,000,000 worth of contracts were closed.

Meanwhile, guided by the Tucson Chamber, sheet-metal workers, machine and iron shops set up a pool which recently brought a sheet-metal contract that none of the plants could have handled singly.

In Seattle, the Chamber set up a similar pool of textile plants and then found them $1,000,000 in war contracts with another $10,000,000 in prospect. The Seattle Chamber is now giving its attention to woodworking firms with the idea of getting them into production of articles once made from materials now unavailable.

Unfortunately, the switch from peace to war production involves considerably more than bringing buyer and seller together. A man who changes from making kitchen ware to making gun sights—as one Worcester man actually did—may or may not become unglued in the process. It is natural for him to turn to his Chamber of Commere where "they know everything about everything." The fact that the change from peace to war is a pretty serious conversion job for the Chamber itself is not regarded as sufficient excuse for not knowing the answers.

In Chicago, for instance, the Chamber organized a special War Problems Department to take care of war and defense matters. It offers assistance to business men in placing defense contracts and subcontracts, deals with priorities, allocations, price controls, research for raw materials and available markets, financing procedures, selective service rulings.

Jacksonville, Fla., realizing that the matter of war contracts needed more specialized skill than the Chamber staff might have, hired an industrial engineer from the faculty of the University of Florida. This man, experienced in private industrial engineering, before turning to teaching, set up six pools in the Jacksonville area, finding the proper prime contractor and subcontractors for each job. Now the State Defense Council has asked to borrow him to do a similar job for the entire north Florida area.

Other local groups have also hired or trained experts. They have helped manufacturers finance war conversions; helped find machinery; and then, as in Grand Rapids, studied the physical structure of the plant itself to see if the floor would carry the added weight of new machines.

The local priorities clinic has become a standard kind of meeting. Some 800 persons attended a recent one in Denver. One in Seattle drew 700. The Muskegon Chamber has one staff man devoting full time to that problem. Spokane has brought in government experts for priorities discussions as often as once a week, while, in Peoria, special arrangements with the Chicago Priority Office of the War Production Board brought a priorities analyst to town for discussions with local business men every Thursday from January through May. New Haven added a sporting tinge to such meetings by holding a clinic in the Yale baseball cage.

Few flags are waved at these meetings. Few flags have been waved in any part of the program and no tanks roll out of the chamber offices at which the staff can point and say, "Look, we helped build that."

But the tanks are rolling elsewhere, planes are building, guns, ammunition, ships are pouring out far faster than anybody believed they could.

Arms and supplies would not be rolling so fast, if voluntary organizations everywhere had not helped in three important essentials which the Seattle Chamber lists like this:

1. Assistance in preparing bids.
2. Supplying complete information on contract and plant financing.
3. Assistance in getting the necessary materials.

Having seen war goods roll, the volunteers have been willing to step out of the spotlight without waiting for applause. They merely say, as the Utica Chamber says:

"We believe we have done a very fair job of fitting local manufacturing plants into the war program by conversion of facilities."

2 ★ Production Lines for Skill

Akron calls the "Lost Legion." While some people wrung their hands. 1,000 foremen for local plants. Training within industry. Tanks seven months ahead of schedule. 25 students become 2,000. "Can we borrow a skilled worker?" Fighting accident and sabotage

FULLY as important as the conversion of plants and machines was the conversion of men. It was a big job, even though some cities, like Cleveland, saw it coming.

There, more than two years ago when the defense training program was only hours old, the Chamber began surveys on the number and kinds of workers its industries needed. The Board of Education used these figures in setting up the defense training program under which 15,000 men and women were trained. The Cleveland office of Training Within Industry, established with the direct assistance of the Chamber, is now the second most active in the country in the "job-instructor" training program.

Other voluntary groups were not caught unprepared.

Two years ago, when even the defense program was only an idea and a blueprint, the Akron Chamber sent out a call for the "Lost Legion"—skilled mechanics who, because of depression, age or ill health, had taken unskilled work. More than 300 inquiries came in, some from as far as Maine and the West Coast. Many are now working at defense jobs.

That helped, but meanwhile new war plants were springing up, bringing all sorts of unusual demands. The President called for 30,000 airplanes. There was only a handful of airplane workers in the country. Some people *pooh-poohed* the program as ridiculous. Others wrung their hands.

In Dallas, the Chamber of Commerce appointed a committee to work with city officials and to get something done. So a $150,000 building was bought and equipped with $200,000 worth of machinery. Instructors were found and a training school set up which has been able to supply the great majority of skilled workers for aircraft and engine plants in the community.

In Worcester, Mass., the Chamber, working with federal and state agencies, set up classes for airplane workers. The Chamber's industrial secretary took the first course and has since served as instructor in a school which has graduated *1,000 foremen for local plants.*

In Oakland, Calif., and Wilmington, Del., the Chambers have worked with the Boards of Education in aiming vocational training at war needs. In Hamilton, Ohio, the Chamber cooperated with Miami University and the University of Cincinnati in organizing engineering, science and other defense training classes.

In Indianapolis, the Chamber adopted a three-point industrial training program: It helped city school officials set up vocational training classes; helped obtain a federal grant of $269,000 for equipment and speeded the allotment of that equipment. It helped in developing a training-within-industry program under O.P.M. and cooperated with the Department of Labor in establishing an apprenticeship training plan.

The fact that workers have been available to push tank production some seven months ahead of schedule; machine tool production about 300 per cent above 1941 and ship production from three to 12 months ahead of schedule gives some indication that these schools are doing effective work. The fact that one of them—that in Wichita—recent-

"Going my way?" Swap-a-ride clubs, staggered hours, new public transportation schedules, relieved congestion, saved gasoline and tires

KEYSTONE



ly graduated its 10,000th student indicates the speed with which they are functioning.

That school was started some two years ago by the joint efforts of the Chamber, the aircraft factories, the Wichita Board of Education and the State Board of Vocational Education. Then it had a capacity of 25 students. Today, with a capacity of 2,000 students men and women, it teaches sheet-metal work, welding, drafting, wood work, machine operation and other aircraft construction trades. There is no tuition.

In spite of such programs, the need for skilled workers seems to outrun the supply. Indianapolis estimates that it will need 30,000 more before the year is up. Other cities expect shortages, too, but in Wheeling, W. Va., a needed skilled man will never be the "nail" for want of which a shoe was lost. There the Ohio Valley Board of Trade has worked out a unique arrangement called the Ohio Valley War Plan. Under this scheme, a plant which employs an inexperienced man may borrow a skilled instructor from any other plant which can spare him.

A plant needing the loan of a skilled worker requests his services for a definite length of time. Some other plant cooperating in the plan then asks a qualified worker if he is willing to be "lent." The man who is agreeable is granted a leave of absence which does not affect his standing or seniority in his own plant to which he returns at the end of the specified time. Participation in the plan is voluntary with the Ohio Valley Board of Trade acting as clearing house.



GRUNER FROM MONKMEYER

Millions of tons of scrap were made available for war because every local citizen "saved a little"

Other Chambers are equally proud of the way their people are cooperating in the war effort. Toledo mentions not only "a new high in cooperation among industries" but the fact that "labor leaders spend hours on end with Chamber Committees."

In Boston, an Industrial Relations Council was formed through which labor representatives and employers unite to reduce causes of employer-employee friction.

In Hamilton, the Chamber and the U. S. Employment Service united in making a survey of the available labor supply in that area. The Charleston, S. C., Chamber and the Labor Board worked together in contacting all available labor and bringing as many workers as possible to aid the defense effort.

Moreover, the voluntary groups do not lose interest in the workers once they get them to work. Many cities, including Philadelphia, have established safety training schools in an effort to reduce industrial accidents which might slow down production. The Jackson, Miss., Chamber has aimed at the same goal with a series of safety banquets. At the first of these, 188 men and women received practical instruction on ways to keep themselves and their employees safety-minded.

Allentown, among others, has added instruction in dealing with sabotage and fire protection to its vocational training courses.

So the local voluntary groups have found men, trained them and taken a hand in their protection. In many towns, they also help make the delicate decisions as to whether a given individual should be inducted or kept at work.

In Muskegon, for instance, the Chamber secretary and its national councillor are both members of the local draft board. It has been their job to keep industry acquainted with regulations and sold on the necessity of cooperating with the military forces which are taking some 500 men a month out of the county. Net result is that currently there are only 152 deferments out of a total registration of 16,787. No employer has ever appealed from a decision of the board.

Not content with filling labor needs, the Chambers have served also in finding managers. When the Civil Service officials needed industrial specialists to fill key civilian jobs in the war program, they turned to the Spokane Chamber of Commerce which recommended men.

But it remained, perhaps, for the Omaha Chamber to do the most unusual labor job of all. While everyone else was seeking skilled factory workers, the Omaha Chamber cooperated with the University of Nebraska to train 200 city boys for farm work. Now, with hybrid corn growers needing 5,000 hands, they are campaigning to enlist business men, school boys and vacationers for this work.

3 ★ Shelter for the Homeless

Sixty-three families from Java. Thousands can't sleep in the streets. "We went into the housing business." List your spare bedrooms. "No Mobilian has a home to himself any more." "A normal city struggling with abnormal conditions"

LATE in April, 63 Dutch families were en route from Java to Jackson, Miss.

The date of their arrival was a military secret but it was necessary that housing accommodations be available when they reached Jackson. Air Base officers there, finding the problem in their laps, turned to the Office Space and Housing Committee of the Jackson Chamber of Commerce. The Committee came through. With the help of the Jackson Real Estate Board and its own registration bureau, it had apartments and homes ready when the Hollanders arrived.

The Hollanders were more fortunate than some others whom the war has transplanted to new localities. Many of them did not find homes waiting when they arrived. It was impossible that they should. Cities which jump from 114,906 population to 165,000 almost overnight—as Mobile did, for example—are not likely to have comfortable beds for everybody. And Mobile's growth is not unusual.



It's fun to be free and these Milwaukee youngsters will never be otherwise so long as local organizations can exercise their ingenuity for worth while causes

New defense plants and expanded old ones pushed Norfolk from 144,332 by the 1940 census to a present estimated 262,000. The population of New Britain has jumped 7,000, with more on the way. These thousands couldn't sleep in the streets and be efficient war producers. So, as one Chamber man puts it:

"We went in the housing business."

They went into it so thoroughly that many cities like Philadelphia which called on William M. Mudge, a business man, to head its Homes Registration Office, never had a housing shortage at all.

In Montgomery, Ala., the Chamber used radio and newspapers in an appeal to citizens to list their spare bedrooms and small apartments. Many persons who had never before rented rooms answered the call. The result was a card file through which dozens of persons still thumb daily and through which, in six months, 391 living units were rented.

In Cumberland, the Chamber persuaded many persons to convert accommodations already existing into small housekeeping apartments and, when furnishings were lacking, worked out plans by which furniture stores equipped the space on a special payment basis.

In Utica, the Chamber sent a housing questionnaire to every home in the city—28,000 of them—in the most complete survey of dwelling units the city ever had. The information obtained is serving as a basis for an F. H. A. housing program now under way.

Such housing bureaus have played a big part in putting roofs over defense workers' heads. Denver has one. Butte has one. Baltimore has one, which in 12 months has found accommodations for 1,138 family groups. In Mobile, where "there is practically no such thing as a Mobilian having a home to himself any more," they managed to place nearly 50,000 folks in private homes while the Government was completing only 650 defense houses.

In Oakland, the Chamber handles more than 120 calls a day so efficiently that Regional Director Flesher, of the Maritime Commission, personally thanked them for their work in placing staff members of the Commission who had been transferred there from Washington.

But frequently homes registration has not been enough. Even with every available space occupied, newcomers have continued to crowd in. That meant new building. In this, too, the local groups have taken the lead.

In Columbus, the Chamber fostered and energetically steered a building program which resulted in 3,600 new homes in a year, although at one time many builders, facing priority obstacles, were planning to withdraw from the field. In carrying out this program the Chamber worked in close cooperation with the Columbus Real Estate Board, the Builders Exchange and government agencies.

Other towns have been equally active. Chambers in Peoria, Rock Island, Hamilton, and Charleston, S. C., have worked closely with home builders. In Fort Wayne, they developed an Emergency Housing Corporation to construct not fewer than 100 rental homes for war workers.

In Spokane they called the builders together and obtained pledges to build all necessary housing without gov-

ernment aid. In Muskegon, where dwelling unit construction grew from 300 units before the war to 750 private and 300 federal last year, private building is now ready to put up 1,000 more homes, if permitted.

If adding new homes involved only throwing a few houses together, these records would still show accomplishment. But building houses is only part of the job. From Wichita comes a summary of some of the things necessary to a building program:

Sewers and sewer disposal systems; complete assistance to the F. H. A. in negotiating sites and all facilities for building projects, including trailers; efforts to secure modification of gas restriction order L-31 which would greatly hamper our efforts to get sufficient housing; ditto, lumber restriction order L-121; getting adequate preference ratings for F. H. A. housing; getting priorities for private and federal housing projects; getting proper community welfare services; getting utility services.

To this list Chicago adds another: There the Chamber was influential in obtaining important changes in the building code to open the way for more economical and prompt defense housing construction.

With problems like these on their minds, it is small wonder that the Chambers are frequently bad tempered with their critics. From Norfolk, for instance, where the Association of Commerce and its affiliated organization the Norfolk Advertising Board have been working so practically that more than 20,000 units have been or are being constructed, comes complaint about "hysterical interviewers" who take up time asking questions and then discard the answers or distort them:

No city can develop as ours has overnight without a slight creaking of the machinery. Our restaurants suddenly discover themselves crowded; our theaters find the ticket line stretching halfway down the street; hotel rooms are at a premium; furnished apartments almost extinct and the water supply system strained to capacity in the face of a near-drought.

"I have read that the citizens of Norfolk are all indifferent, inefficient or money-grabbing. In point of fact, Norfolk is a normal city struggling with abnormal conditions."

4 ★ Traffic's Gordian Knot

The Stanley Steamer expired. Ride-thumbing becomes patriotic. Making one car work for four. Where do they come from—where do they go? Getting the mostest from the leastest. Four and one-half man-years of work

OUTSIDE Norwalk, Conn., newsreel cameramen waited with expectant lenses to record the birth of a piece of civic enterprise. Norwalk had organized a swap-a-ride club and four prominent residents of the neighborhood, signed as charter members, were inaugurating the plan with considerable fanfare.

James Melton, opera singer and collector of ancient automobiles, had tooled up a venerable Stanley Steamer with which to give a lift to Lily Pons, Andre Kostelanetz and Col. Lemuel Q. Stoopnagle. Riding in remarkable discomfort toward New York, they planned to do their bit in publicizing a measure designed to save gasoline and tires and at the same time provide transportation for defense workers left afoot by rationing.

The trip started jauntily and the flame of cooperation leaped high in every breast save that of the Stanley Steamer. The Stanley was definitely not in the spirit of the thing. Long before it reached the newsreel men, it expired with a vaporous sigh.

At that point what had started out as an amusing publicity gesture became a practical demonstration of ride-swapping. The four passengers, it turned out, had other engagements later on. They shortly were standing beside the road thumbing rides.

If other towns had less fun than Norwalk in launching their war-time transportation programs, it did not necessarily mean that their sense of humor was impaired. It might well have been. Traffic jams mend no tempers and, as the growing tide of workers bulged streets and public transportation, many cities found themselves engulfed in traffic jams of Gordian Knot complexity.

Gasoline and tire rationing, when they began to take cars off the streets, changed the problem's complexion but not its urgency. The towns rallied to do something about it.

Swap-a-ride clubs were one manifestation of this effort. Sometimes called car pools, they contributed their bit by permitting one car to do the work of four or five. In Baltimore, where 300,000 persons go to and from work every day, one plant's car club operated so effectively that the number of passengers per car increased to 4.4. The country-wide average in the past has been about 1.5.

The mostest from the leastest

Such things helped, but the puzzle was bigger than that. Soon the local people were finding out definitely how big it was. Allentown and Bethlehem combined in a survey that gave them accurate information about the transportation habits of 80,000 persons. In Houston a special emergency transportation committee took the initiative in a study of all phases of city transportation.

In Fort Wayne, Minneapolis, Shreveport, and New Haven—among others—similar surveys were made. In Shreveport, when Coordinator Eastman appointed a coordinator of transportation, he chose a member of the Chamber of Commerce Board who, using information already compiled, was able to take the first step toward relieving congestion within a week after he was named.

Through surveys such as these, the citizens learned many things. They learned, in New Haven, for instance, *how* street cars, buses, and highways are used, the *starting places* of defense workers and where the pools of employment are.

With the exact shape of the problem thus clearly determined, several advantageous hand-holds were revealed. For instance:

"If everybody wasn't trying to go to work or to go home at the same time, there would be less traffic congestion."

Obviously, then, the thing to do was change somebody's hours. The trick was to get the *mostest* out of the *leastest* by changing a few people as effectively as possible. It was strictly a local proposition because every town's geography, traffic and employment are peculiar to itself.

The Transportation Department of the United States Chamber of Commerce could prepare—as it did—a broad plan for guidance, but details were strictly up to those who had been getting communities out of jams for years. They attacked it as they have always attacked such things.

In Atlanta, they found that an adjustment of from 15 to 45 minutes (average about 30 minutes) in the working hours of about 250 firms would increase the carrying capacity of street cars and buses by 20 per cent. The change affected approximately 26,000 workers, or 18 per cent of the city's 140,000 employed.

In Montgomery, a ten-point plan ably supported by publicity found doctors and dentists willing to open their offices before or after the morning peak bus traffic; retail stores moving their opening hour to 9:30 and holding special sales in mid-week instead of on week-ends.

Many bus stops were eliminated to speed traffic and permit more trips. Special permits allowed old buses to return to service. A campaign urging housewives to shop in the slack hours showed marked results. Now a survey of pay days is being digested with a view to asking certain

concerns to shift to less traditional days so that the payday peak may be stretched over a longer period.

Staggered hours were made more effective by a dozen different quirks adopted to meet local conditions.

Quincy, Mass., was able to have bus fares from outside communities to its defense area reduced about 40 per cent.

In Jackson, certain bus lines were abandoned so that equipment might be used on routes serving more people—with the result that members of the Chamber's transportation committee spent busy hours on the telephone answering complaints.

In Wichita, where many plants are far out, worker transportation involved negotiations with railroads to obtain commuter service, licenses for new bus lines and action by county, city, state and federal authorities, coordinated through the Chamber of Commerce, to widen and improve certain strategic highways.

In many places, school buses were pressed into service as common carriers.

In Montgomery, still looking ahead, the Chamber's War Conservation Committee, with the help of auxiliary policemen and air-raid wardens, has already made a survey of auto owners to find out how long tires on private automobiles are likely to last—and to plan accordingly.

All this effort to get people to work on time would have meant little if they had had nothing to work with when they got there. The fact that *movement of goods* was as important as movement of people was not overlooked.

That included, perhaps, even more complications than human transportation because it covered a bigger field.

Locally it involved store deliveries. That meant cooperation among merchants of the kind that began in Peoria more than a year ago when local business men agreed to curtail deliveries in an effort to conserve rubber.

In Wilmington, Del., local delivery mileage was reduced one-third as merchants combined in a plan under which retailers make one delivery a day; furniture dealers, four a week, with only three trips to suburban areas. Kankakee, too, worked out uniform delivery practices through a series of group meetings.

Reaching even outside their own limits, many cities have added their bit to the efficiency of national transportation. Memphis arranged a meeting where 596 mid-southern truck operators heard explanations of O.D.T. regulations and established a volunteer freight car efficiency committee of active industrial traffic men to supervise prompt movement and conservation of railroad equipment in the Memphis terminal. Tacoma helped truck operators meet requirements for tire conservation and, where necessary, to win special concessions.

In Charleston, the Chamber is cooperating with the I.C.C. in helping shippers and receivers unload freight cars promptly. In Cleveland, Andrew H. Brown, of the Chamber's Transportation Department, is doing the same thing in addition to accelerating industrial and domestic purchases of coal.

The Chicago Association of Commerce turned its attention to early coal deliveries, too, as well as carrying on a campaign to educate shippers—both by railroad and truck—in the arrangement of schedules and shipping practices that would make the most economical use of shipping equipment.

All of these actions have been taken so normally and accepted so calmly as a matter of course that few have con-



It doesn't just happen that, all over the country, business establishments report that their workers have signed up 100 per cent to buy war bonds every pay day



O. E. M. PHOTO BY PALMER

New houses helped meet the problems growing out of increased populations but "going into the housing business" wasn't all of it. New streets, sewers, public services were needed, too

sidered how seriously they have actually affected the American people. As one Chamber man points out:

> This work has changed the lives of most of our citizens. They go to work at a new hour; do their shopping at a new time; invite the people next door to ride with them; walk a block farther to catch a bus; will soon be getting their pay checks on a new day; and are conserving their tires.

Moreover, they are doing all this voluntarily, revealing a capacity for self-discipline that probably comes as a surprise to many people, although not to the Chambers of Commerce. They knew that Americans could and would cooperate if they knew that cooperation was necessary to win a goal they regarded as worth winning.

But then, they "knew everything about everything."

5 ★ Shooting Japs with Junk

5,300 tons of rails. "How about the rubber on your feet?" The man who discovered a rubber mine. One garden shovel, four hand grenades. Ten tons of auto licenses. "Keys to victory." A scrap army of 2,800

OFFICIALS of an Indianapolis tank-making plant were beginning to look worried. They had only a week's supply of scrap steel and none was to be had.

Someone with a memory for figures offered a rather hopeless suggestion:

"There are 5,300 tons of rails in unused tracks of Indianapolis railways."

Unfortunately those rails were still in place. A lot of inertia and red tape was holding them there.

The puzzle finally reached the Chamber of Commerce. Shortly men were busy prying up the rails. Other men cut them into two-foot lengths which were melted down and then rushed to the tank factory. The city received $67,000 for the sale of the rails, enough to pay the cost of resurfacing the streets.

That kind of local ability to get things done was demonstrated better perhaps in the salvage campaigns than in any other of the war jobs that piled in on the local communities. Saving waste materials was, in last analysis, a task for the individual. Men who knew best the type of collection service which would appeal to the individuals in their own communities devised a score of ingenious methods to get the scrap, to get it all and to get it quickly.

Some of them started even before the Government's formal appeals came in. In Memphis, for instance, the Chamber turned Clean-up Week into a salvage drive which netted 18,640,756 pounds of salvage material—17,754,003 pounds of it, scrap metal. The job was done by 156 salvage wardens in industrial firms.

Minneapolis started its campaign with a state-wide scrap clinic sponsored by the Civic and Commerce Association.

In Tucson, they combined collection of scrap with garbage service. Citizens set out usable trash in separate containers.

In New Haven, they divided the city into four sections and gave each householder a card to be displayed in the window to summon the commercial scrap dealers who visited each section on a scheduled day. Boy Scouts, the Salvation Army and other organizations accepted offerings of those who wanted to donate their scrap, sold it and turned the receipts over to the Red Cross or the U.S.O.

It was in New Haven that a small boy in tennis sneakers appeared at a collection point with a load of scrap rubber and was jokingly asked,

"How about the rubber on your feet?"

The youngster squatted, removed the sneakers, tossed them on the pile and went away whistling leaving his questioner gobbling protests.

It was there, too, that the Chamber of Commerce was visited one day by a man whose excitement surpassed his command of English. He thought he "had discovered a rubber mine." What's more, he actually had.

It seems the visitor had started a Victory Garden on a vacant lot where a junk dealer had once dismantled obsolete cars. In the cellar of a house that stood there the dealer had stored old tires. The cellar was later filled in. The gardener's spade had tapped a cache which eventually yielded 30 tons of rubber.

Less startling, but equally satisfactory, was the Omaha campaign which demonstrated, incidentally, how much might be obtained from a little. Putting into practice an argument also advanced in Atlantic City, "You may think your little bit won't help, but your little bit—such as a discarded garden shovel—will make four hand grenades," the Omaha Junior Chamber put containers on street corners, invited the citizens to toss in old auto licenses.

They collected ten tons of metal that way.

The Junior Red Cross followed with a "Keys to Victory" Campaign with slotted barrels for the collection of discarded keys. They did remarkably well. Among others, the Netherlands' Ambassador, Dr. Loudon, contributed his bit.

Then the Women's Division of the Chamber of Commerce sponsored a "Save Grease" drive whereby the housewife sold her salvage grease to the grocer at five cents a pound. With the campaign still going enthusiastically forward, 3,500 pounds had been collected.

That makes salvage sound pretty easy. It isn't, as Akron found when an original collection effort petered out simply because people were not interested. That wouldn't do. So Akron went to work.

Harley C. Knecht, former B. F. Goodrich Company Salvage Manager, and Evan Williams, Jr., of the Chamber of Commerce, took over with the help of a committee of scrap dealers, who agreed on prices, and the City of Akron Service Department which provided trucks for collection.

2,800 Volunteers hunt junk

Next they selected a chairman for each ward, seeking people known as "enthusiastic workers." They recruited a "Scrap Army" of 2,800 from among those who had volunteered, but had not been chosen, for civilian defense posts.

They held inspirational mass meetings, sent their workers to call on every resident in their districts explaining the purposes of the drive, the wanted materials and impressing the date of collection.

On collection day householders put their scrap on the curbs in front of their homes. City street cleaning trucks picked it up. Private owners provided trucks to pick up what was missed.

When it was all over, 1,029,625 pounds of usable scrap had been collected. Sold to regular junk dealers, it netted $3,117.95 to the Summit County Civil Defense Council.

The City Barrel and Coal Company provided special trucks, at the company's expense, for picking up glass, which needed special handling, and then paid the city of Akron $5 a ton for the collection.

Always the story has been the same. Volunteer workers have come through in spectacular fashion. In Shreveport, they collected eight pounds of rubber *per capita* and an equally good ratio of scrap metal. In Milwaukee, where funds for a salvage campaign were lacking, local business men got together to finance a successful drive. Harlingen, Texas, collected 300,000 pounds of scrap metal, and 392,505 pounds of rubber. Tacoma, Kankakee, Grand Rapids had equally successful drives.

What such figures mean to the war effort has been explained by P. S. Anderson, of W.P.B. Congratulating Richard E. Hatfield of the Utica Chamber on that city's salvage effort, he wrote:

> The 6,264,505 pounds of steel and iron scrap collected by Utica manufacturers will make 500 three-inch anti-aircraft guns; 2,000 75mm. howitzers and 50 medium tanks.
>
> Copper and brass collected will make copper wire for approximately 1,200 bombers, while paper scrap will provide 360,000 practice targets, 710,000 dust covers for engines and 18,000 average-size shell containers.

In only one place did the volunteers fall down, and that was because they did too well. In Tulsa, when a spectacular drive turned up so much scrap that it took three days to haul it off the streets. The volunteer sorting force was swamped. They had to turn the job over to professionals who did $1,000 worth of work on it. Even then some $4,600 was left when the stuff was sold.

Now Tulsa is starting another drive.

6 ★ Mobilizing Dollars

10,000 volunteer bond salesmen. Will politicians work together? The Mayor assists his rival. Real help from the central office. "Whiteout for Victory." "Take your change in War Stamps." Things that don't just happen. A $3,300,000 breakfast. Buying home-town airplanes

"WHO will help us sell the bonds?"

They asked the question in St. Louis. Wars take money and a drive to inspire the purchase of war bonds was three weeks away. Its success required a colossal job of organization. Some 10,000 workers were needed. Where does one find 10,000 volunteer bond salesmen?

The answer, of course, is that one finds them among those who have always volunteered when a community job pops up. In St. Louis, it started with the Chamber of Commerce. Chamber men went looking for running mates.

First call was on the Board of Election Commissioners. Among the election clerks and judges were scores of active politicians, men who knew their neighborhoods, were used to talking persuasively for causes they believed in.

"Give us their names and we'll get them to do the job."

Twenty-five per cent came in—a good response.

A skeptic raised a question:

"Will these men—Republicans and Democrats—work together?"

It was soon answered. Joseph M. Darst, director of Public Welfare in a previous Democratic administration, was chosen as Pledge Campaign chairman for the twenty-fifth ward, home of Republican Mayor William Dee Becker.

Mr. Darst called the Mayor:

"Will you work for me in this thing?"

The Mayor and his wife joined up.

The chairmen of the Democratic City Central Committee and the Republican City Central Committee delayed long enough to issue statements urging party members to get in there and pitch. Then they went to work as vice chairmen.

Round the skeleton organization of political party members, the other local organizations rallied. C.I.O. and A.F. of L. leaders endorsed the campaign and then went out, side by side, to ring door bells. Union members found other door bells. Service clubs, improvement associations, the American Legion and its auxiliary came out swinging.

May 18, 19 and 20, the 10,000 volunteers, the largest volunteer army ever working on a single cause in St. Louis history, went out for a house-to-house canvass. Behind the lines, the Chamber's War Savings office did the staff work,

phoning directions to ward chairmen, answering questions, supplying workers' kits.

The secret, says St. Louis, is: "Get top leadership agreed and working; advertise the need; appeal to basic patriotic feelings. Then back it up with real help from the central office."

That advice presupposes, of course, that there shall be local volunteer groups which have "top leaders" who are used to getting things done. Without such leaders, Indianapolis, for example, could not have organized a volunteer group which in four months obtained salary allotment commitments totaling $851,062 worth of bonds a month from 81,784 workers in 516 employing units, in addition to soliciting 2,300 professional men and 90 credit unions.

"Those things," as B. F. Moomaw, of the Roanoke Chamber says, "just don't happen."

It didn't just happen either that 175 Roanoke establishments are operating the pay roll allotment plan—64 with 100 per cent participation, 21 others with more than 90.

It doesn't just happen that Milwaukee has 108 committees working on bond sales, or that the city recently celebrated a "Whiteout for Victory" day with an impressive county-wide celebration, or that the retailers all over the county are stressing advice to "Take your change in War Stamps."

Buy a share of freedom

It doesn't just happen that, in 100 Harlingen stores, every employee has pledged five per cent of his salary to bond purchases; that pretty girls in colorful costumes sell stamps on Cumberland streets; that 1,400 retail stores and restaurants in Peoria take part in the stamp and bond selling campaign; or that the best bond selling store window in Spokane won a bond as a prize with another bond going to the retail salesperson selling the most bonds and stamps in July.

Back of all those things is the organized might of the *volunteers,* expert trouble shooters.

It is they who get up early to attend the bond breakfasts (1,000 of them in Chicago bought $1,734,425 worth of war bonds at the first one. Atlanta topped that with $3,300,000) who handle preparations for "American Heroes Day," who sit on the "Retailers for Victory" committees. They whip up the enthusiasm with slogans—"Buy a Share of Freedom"—and work out the details for events like "Harrisburg's Greatest Sale":

> We'll have a pursuit ship in Market Square . . . a 50 passenger ambulance (the biggest ever built) . . . canteen units, soldiers' outfits, sailors' equipment, iron rations, in fact, everything the Army or the Navy can lend us without interference with the war. . . . We're going to do a lot of stunts—in our stores—on the streets—in our windows—up in the air—anywhere that we can do something to sell another stamp, another bond.

That sort of enthusiasm went into local efforts all over the country in July as 7,000 retail stores took part in a selling campaign which sold almost $1,000,000,000 of bonds, no one knows how many stamps.

They put drama into it, and punch. In Buffalo, where the Treasury Department set a goal of $175,000 in war stamp sales, earmarked for the purchase of two war planes made by home town workmen, they exceeded the goal by $75,000 and, in the campaign period, exceeded the normal sales of defense bonds by $720,000. On the last night of the campaign 20,000 persons jammed the Municipal Auditorium to see the planes, built and paid for in Buffalo.

Other cities planned equally spectacular demonstrations.

Bonds have been sold from fire truck ladders, wheelbarrows and push carts as well as over counters. No one mind could have had all the ideas that the volunteers stirred up, no one power could have engineered an effort so immense. Only voluntary groups could do it. They are, as one of them puts it "in active duty . . . not in uniform but as the connecting link between the 'guv'mint' and the general public."

7 ★ They Can Do it Again

"Who will help with the harvest?" Enlist to use a hoe. The wreckage of peace-time pursuits. "The Mortar Board." Swapping surplus materials. Swimming pools for soldiers. Price ceilings and air raids. "Arms for America." Preparing for peace

IN CALIFORNIA'S fields and orchards crops were ripening. Bombs had fallen on Pearl Harbor, the world was at war. But, unconcerned by the activities of armies and navies, Nature took her course.

Farmers looked doubtfully at the valleys and mountainsides. In war-time those crops were doubly important.

"But how will we harvest them?"

It was a serious question. The Okies and Arkies were moving toward high wages in arms plants. Farm workers were joining the migration. Japanese workers were being moved to concentration camps. In offices and shops women were replacing men who were leaving for the front.

"Where are we going to find workers?"

In San Francisco, another group was considering that problem. The Chamber of Commerce had an Agricultural Committee, just a year and a half old, made up of farmers, farm leaders and business men. They had seen the problem coming and realized it was too big for them to handle. They knew also that it was not too big for voluntary effort, if the entire community could be united.

Letters and telegrams flowed out of San Francisco to cities throughout northern California:

"Will you help with the harvest?"

Wires and letters flowed back:

"Count on us."

Voluntary organizations came in, pledging their strength and skill—the Regional Service Committee, the Y.M.C.A., School Department, Civilian Defense Council, Junior Chamber of Commerce, all submerging their identity in the one program of the newly formed War-time Harvest Council.

First came a selling campaign. Office men and women, school boys and girls who had never done farm work had to be taught the need of helping:

"Enlist to serve your country—not with a gun but with a hoe."

Employers had to cooperate. The mayor recommended, and obtained, amendment of a city ordinance prohibiting city employees from earning wages on vacation. The school department chipped in by permitting boys of 15 or older to make up credits lost if the harvest detained them.

The workers had to be housed. The Y.M.C.A., several religious groups, American Youth Hostels, Inc., gave a hand at that. Transportation had to be arranged. Chartered buses were provided between camps and fields. Insurance, workmen's compensation, health precautions—these were worked out.

Schedules were needed to guard against too many workers at one place, too few at another.

Few jobs, it seems, are impossible once the volunteer organizations turn their strength against them. If they were, Miami could not have reconstructed its whole community business on the wreckage of peace-time pursuits. Famous as a resort city, Miami could have faced a bleak future in a war world where no one had time to play. It didn't.

Today 100 of its 250 beach hotels house aviation students. All its merchant ships were drafted, but the loss

was quickly replaced through a campaign to route Cuban sugar through the Miami port. Training schools of half a dozen kinds, a base for blimps and $40,000,000 worth of war contracts replace lost tourist business.

Other cities have been equally skillful in adding their own community trimmings to the task of war production. In Harrisburg, Pa., civilian-military relations have been humanized by "The Mortar Board," an organization described as a cross between a service club and a fraternity.

Long experience with military men at near-by posts had proved to Harrisburg Chamber officers that military men enjoyed the same kind of fellowship as civilians. Moreover, many of the problems involved in construction, expansion and operation of Army posts required civilian cooperation. That cooperation had been good.

When Susquehanna River flood waters threatened the Air depot's landing field, it was the Chamber that threw its efforts into getting a protective dike. When the New Cumberland General Depot decided to convert 40,000 wagon spokes into military police clubs, the Chamber found a local firm to do the work.

But, as the posts expanded, close personal relations between the military men and civilians became more difficult to maintain. Harrisburg didn't like that. First step toward continued fellowship was for a number of community leaders each to take on the responsibility of becoming intimately informed about a single military establishment and to be ready to help its officers as needed. That is where the Mortar Board comes in. It is the "mortar that binds civilians and military men closer together."

There are no dues, no signs or symbols except membership cards. The entire membership meets only occasionally but subcommittees, and their military friends, get together informally to solve problems.

A surplus materials exchange is Los Angeles' peculiar contribution to war efficiency. Under this plan, companies having surplus materials list them with the Chamber of Commerce, which acts as a clearing house. Any member seeking supplies may call the Chamber and learn who has such materials. The two then get together and arrange a sale or trade, subject, of course to priority regulations.

Nor has the effort to equip the men in the Army been permitted to lead to the view that these men are merely fighting machines. In Tucson, Ariz., a reservoir containing a million gallons of water had been built for use in watering the Municipal Golf Course. Somebody had an idea. Soon a campaign was started for funds to build dressing rooms and shower baths. Now the soldiers have a serviceable swimming pool.

In Mobile, long before U.S.O. was able to provide varied recreation, the Chamber was sponsoring dances for service men. Macon had raised a fund, equipped a building and installed a staff for soldier recreation "long before U.S.O. was thought of." In Harlingen, the "Military Maids" plan soldier entertainments. In Milwaukee, starting from scratch, they found a site, renovated it, furnished it and entertained the first group of service men just three days after the first meeting to discuss plans for a program.

In Houston, the Soldiers' Service Bureau equipped a large first floor room with secretarial service, typewriters, writing rooms, bath, free shave facilities, cots, first-aid, game rooms, radios, phonograph, piano, magazines, even hot coffee and cakes, for soldiers spending their leave in town. To this they added opportunities for individuals and groups to attend athletic events and to visit Houston homes as week-end guests. Tacoma created a similar building called the Soldiers and Sailors Club.

Other jobs that backed up into local communities and

Retailers came through, sold almost $1,000,000,000 worth of bonds, unnumbered values in stamps in July, made month one long patriotic rally with original sales promotion ideas

COSMO-SILEO FROM BLACK STAR



were expeditiously handled included *rationing*, which provided something of a problem in many places—Philadelphia and Tacoma among them—when first proposals were to make allotments on the basis of the 1940 census. Philadelphia's population had grown more than 300,000, Tacoma's 20 per cent in the meantime.

Price ceilings brought further complications which Memphis helped solve with a clinic on ceiling prices which 1,350 attended. Roanoke used the same technique.

That wasn't all. There was *air-raid defense*, which Denver calls the "biggest organization job that has been assigned to the Chamber," and which, in Wilmington, finally outgrew the Chamber quarters altogether. There Civilian Defense organizations numbering 80,000 persons were set up in 52 communities.

Other kinds of protection were necessary, too, against people like the man who offered Atlanta citizens memberships—at $1.50—in the "Keep 'em Flying Club." Red-blooded Atlantans swelled his membership rolls until a Chamber member succumbed, thought better of it, and phoned the Better Business Bureau. It turned out the "club" existed only in the organizer's mind.

In addition, local communities have undertaken all sorts of special jobs.

South Bend, Ind., where the Board of Directors, reporting Dec. 1, 1941, indicated 26 specific ways the Association of Commerce could help in national defense, added a twenty-seventh by turning out an all-color sound film showing the changes the war has brought to the city. Entitled "Arms for America," the film has been viewed by 100 enthusiastic audiences.



PIERSON FROM MONKMEYER

Long before U.S.O., local volunteer groups were meeting needs of service men for entertainment

Shreveport, justifying its title, "Medical Center of the Central South," established a blood bank. The Cumberland Chamber, meeting the need for birth certificates which were demanded of employees of certain plants, prepared information regarding the regulations in various states. Chicago added to its other activities an advertising campaign in export journals explaining to foreign customers why our Government had been forced to curtail exportation of many products.

Even cities without war industry or training camps have found ways to serve. Bluefield, West Va., reports that Chambers have never had so many opportunities for service. As demonstrated there, those opportunities include a half dozen salvage campaigns, pushing the sale of war bonds and stamps, helping set up civilian defense, Victory gardens, home canning schools, parties for departing draftees, sponsoring meetings at which business people could hear explanations of O.D.T., O.P.A. and W.P.B. regulations, organizing a United War Chest—and unselfishly training young men for war jobs elsewhere.

"Sure, it means they are leaving our community but we feel we owe it to our nation's war effort to help meet the demand for skilled workers in those cities that have booming defense plants."

Going the whole way, they arranged special railroad commuters' service to carry the newly trained men to Radford, Va., 65 miles away.

A lake full of tires

Soon somebody remembered a local custom of throwing old automobile tires in the lake formed by Falls Mills Dam. They drained it and collected 250 old tires.

Busy on these immediate problems, the local voluntary groups have not forgotten that *wars end sometime*.

The Toledo Chamber of Commerce has laid out a post-war planning program. Kankakee is preparing one. In Sacramento, the 12 past presidents of the Chamber make up the Post-War Planning Board, with stabilization of property values as a major objective. In Wichita:

> Our good roads and industrial departments are cooperating with the proper officials in working out plans for a worthwhile construction activity to take up the slack in the post-war period. We also have a *'thinking committee'* whose sole job is to look into the future and possibly to make recommendations to other committees.

While from the West Coast:

> Seattle is making detailed, practical studies in connection with the post-war period. Although these studies take into consideration those things which are likely to be negative angles, it is encouraging that, thus far, the things on the positive side considerably outnumber those on the negative.

So it goes. Acclimated to looking for trouble, these voluntary organizations are already mobilizing to open a "peace-time" front as they accept all the challenges war can offer. It is the sort of thing they have been doing for years with little fanfare. It is the old story of praising the actors but ignoring the stage hands whose skill eliminated the stage waits.

Unlike the stage hands, the voluntary organizations faced the additional task of converting to war operations at the same time they dressed the scene for others. They did not falter. Nor did they permit others to falter.

While the storm clouds were beginning to gather and many people were still wondering if the United States was meddling needlessly in foreign affairs and inviting trouble, the Spokane Chamber of Commerce staged a rousing old-time patriotic rally. More than 5,000 persons reaffirmed their pledge of allegiance to the United States.

When we have celebrated our victory and a tired people tries to sink into the lethargy that follows the enervating stimulus of war, these voluntary organizations will still be "looking for trouble." They'll get us over that hump, too, because they never let down:

They did it before—and they can do it again.

Getting Post-War Jobs Ready

BUSINESS is already mobilizing to prevent a post-war slump. Some of the weapons being tested are described here

IT IS PART of business technique to look ahead, anticipating human tastes or desires and preparing to satisfy them with better products when they are finally manifested in the market place.

It is not surprising then that business men today, without taking their eyes off the main job of military and civilian production for war, are already considering the needs of a post-war world. When peace comes, business and agriculture will face the task of providing jobs for 6,000,000 to 8,000,000 soldiers and sailors, for 40,000,000 war workers.

Business is willing to accept that responsibility, but it must go even further. Practical men know that it is not enough to promise, "we shall be ready." They prefer to base their promises on facts.

"Theories have their proper place in post-war planning," says Eric A. Johnston, president of the U. S. Chamber of Commerce, "but the problems that peace will bring to American industry and to the country as a whole will be solved only on a foundation of facts."

To determine what the facts are and to make them available as guides for management, labor, agriculture and Government in solving post-war problems, the National Chamber is conducting a nation-wide survey to reveal post-war consumer needs, potential purchasing power, and the time and requirements for reconversion of industry to meet the demands of a renewal of peace-time production.

Utilizing the most modern methods of ascertaining consumer opinion, the national survey has these broad objectives:

1. To provide an actual inventory of major types of family purchases —that is, things that American families now possess, such as automobiles, homes (rented or owned), appliances, etc.
2. To determine when things now in use are expected to wear out.
3. To determine points of desire. "If the war ended tomorrow what are the things you would most likely buy?"
4. To determine ability to buy.

Specific industry researches will be undertaken by broad divisions of industry, such as construction, natural resources, transportation and communications, manufacture, distribution, insurance, finance and foreign commerce. The industrial survey will be facilitated through the cooperation of the National Chamber's extensive membership of 1,750 chambers of commerce and trade and industrial associations.

Information to be compiled as a result of the industrial survey will be detailed data on plant capacity needed for continuation of defense needs; plant capacity available for production of needed peace-time products; machine tools needed in reconversion to peace-time needs; time required for reconversion; labor needed for reconversion and for production; raw materials required; and semi-fabricated materials necessary to conversion and production.

A pilot test, already made, reveals that:

1. One out of every 30 families will buy or build a new home immediately after the war.
2. Three out of ten home owners will paint, plan interior decoration, remodel and modernize bathrooms, kitchens, heating equipment.
3. 46 per cent of families interviewed name specific durable goods purchases they would make.

"It is hoped," says Mr. Johnston, "that the material which this survey makes available will be helpful to planning agencies, both public and private. Continuation of the American enterprise system and all that the system implies—freedom of the individual as well as freedom of enterprise—depends upon business supplying the majority of jobs for those who want to work when the war is ended."

NATION'S BUSINESS will report from time to time the results of these studies.

Priority Plans for Customers

By WILLIAM J. ENRIGHT

WILL the American people make monthly payments now on nebulous products to be delivered at some future, post-victory date?

The belief that they will has fostered a score of "layaway" schemes, in which the public would be coaxed to "save for a purpose," to "buy now for delivery after the war."

The layaway plan is old and simple. From time immemorial prospective brides and grooms have selected their furniture and started payments months before their marriage. It is an accepted practice for stores to show wool blankets in the spring or furs in the summer, with customers making their payments for winter delivery.

However, in most of these instances, the customer is able to select the article he desires and to set definite delivery dates—impossible in the proposals now coming out.

The theoretical advantages in the layaway plan are numerous:

1. It would siphon off excess purchasing power, reduce the demand for a constantly dwindling supply of consumer goods and thereby bulwark the nation against inflation.
2. By converting payments into war bonds, it would help finance the war, possibly eliminate the need for forced savings and more drastic taxation.
3. It would enable many companies, particularly durable goods dealers to remain in business, thus assuring retention of sales staffs and the resumption of more normal advertising.
4. It would build up a definite backlog of orders for the post-victory period. This backlog will undoubtedly exist anyway but the theory is that manufacturers will proceed with more courage if they have a definite number of orders scheduled and that consumers with "earmarked" funds would be forced to spend them, instead of holding back expenditures because of un-

(*Continued on page 91*)

Better



PERHAPS you read it, too. "United States will be limited to essentials this year . . . citizens will find it difficult to buy anything beyond the essentials," says Wickard. So read the headlines. They had an ominous sound . . . quite foreign to my surroundings. I was sitting on the sunny porch that pleasant July morning and all those threatened limitations seemed far off at the moment.

But suddenly an idea hit me. "This year" meant the coming winter . . . winter meant Christmas . . . and Christmas meant shopping.

"If we are going to be limited," I wondered, "just WHAT will I do about those long lists that are brought out, in our family, as soon as the Thanksgiving dinner is properly over?"

Ours is a large and scattered family. We seem to have "sisters and cousins and aunts by the dozen" (that isn't the way it goes, but you know what I mean) scattered from the Eastern Shore right on through the Middle West to Pike's Peak. I have a well thumbed "Christmas Book" that is a great help. Thoughtfully, I went indoors, opened my desk drawer, pulled out the book and looked at it. I know, for instance, just what I've given young Barbara, my niece, from the time I sent her something called a "Tinker Whirligig" in 1925, to the extravagant bottle of her pet perfume that I dispatched to Cornell in 1941. (I only hope it was as devastating to the stag line as it was to my purse.)



Scanning that list, it occurred to me it might not be a bad idea to do a little Christmas shopping early . . . and by early, I meant EARLY . . . next morning, to be exact. I'd get a good picture of the gift possibilities and prices.

Well, now I know.

I have learned that shopkeepers generally expect this to be a very practical Christmas. They expect to sell more useful articles and warm garments. All the wool robes they have, plenty of flannelette gowns and pajamas, umbrellas, warm gloves and scarfs. They think winter coats and wool blankets will be more in demand than less practical luxuries. They have looked ahead, carefully and cautiously and tried to anticipate your needs and mine, to give us as much as they can for our money. In most cases selections won't be what they were last year or the year before. There will be fewer American watches, no new silver plate, few metal desk sets, fewer mechanical toys. Remember the manufacturer could get less raw materials, the storekeeper could buy fewer articles and you, naturally, will not have so wide a choice as you once had. It is all part of the price we are paying for Victory.



Toys: To get right down to cases, take toys. In the big stores that could buy ahead, you will find about half the metal toys of last year. That means trains, soldiers, mechanical toys. The dead line on their manufacture was June 30. One large store which carries toys the year 'round, promised me a good selection of trains and metal toys. Another shop, where toys are seasonal, will have few metal playthings. Toys generally, will be from 10 to 15 per cent higher. If you find any 50 cent mechanical toys it will be because the maker had them left over from last year. The trucks, dump carts, fire engines and army trucks that were $1 last year will be $1.25 and $1.35 this year . . . and there will be fewer of them. To take care of this shortage, there will be more wood and card games and toys for boys and girls.

The martial mood of the world is re-

Do It Early. . .

By LIDA C. LUECK

A FOREHANDED shopper goes browsing with her Christmas list. Checking her findings against your own list, you'll vow to do likewise. You won't!



flected in its toys . . . there are more army tanks, jeeps and trucks . . . some of metal, some of wood. Many toys could not be made in wood instead of metal because of the difficulty in the change of construction. Metal toys are stamped . . . wood toys must be cut, sometimes steam bent. Queerly enough, because last winter was mild in my part of the country, there are plenty of sleds. But, when these are exhausted, Junior will take his belly flops on wooden runners.

Dolls: Dolls, being made of wood pulp, composition, and such unromantic stuff, will be plentiful. There seems to be no restriction on anything that goes into the making of dolls. Not now. Rubber dolls, of course, are scarce and only those already on hand are to be had. While doll prices seem the same, the doll itself may be a little smaller . . . but to the average customer this will not be discernible and it is more accommodating to the purse.

Bicycles are made only in the "Victory" model . . . a standard that is the same under every maker's label. Naturally, there will be few velocipedes.

Christmas cards? Yes, plenty of them. They are ordered early, made up ahead of time and you will find a good selection. You'll even find 50-for-a-dollar Christmas cards on which you can have your own name printed, too.

In stationery they tell me I'll be able to get plenty of colored writing paper, but white papers will be scarcer . . . and the whites are not so good, because the chemicals needed for bleaching are being diverted to other uses.

Many of the companies that made copper and bronze desk sets are no longer in this business . . . and in desk sets it will be a matter of taking what you can get. There will be $5 and higher fountain pens . . . but not so many cheaper ones.

Books: Of Christmas books there seems no end. But expect to pay $2.75 for last year's $2.50 Best Seller and $3 for the one that was $2.75. There will be plenty of those lovely $1 and 50 cent books for children. It is always amazing to me what beauties are to be had for $1. But there will be fewer colors . . . that is fewer high colors in illustrated books. If your home town is far from Kingsport, Tenn., your local book dealer had best order his books SOON. That's where thousands of children's books are printed. And remember, books are heavy and freight is something to be reckoned with these days. It adds to the cost and it takes longer for delivery this year.



Hose: Most Christmas lists include handkerchiefs, gloves and silk hose . . . and I thought a little investigating in those departments might be enlightening. It was. Last year, for example, we were wearing Nylon hose. This year Nylons will be few indeed. The silk hose that sold last year for $1.65 and $1.95 a pair will be $2.00 and $2.95 come Christmas, 1942. What are we going to wear? Rayons . . . and like them.



Makers are improving rayon hose constantly, the newest are sheer, nice looking and reasonably priced . . . you can get anything you want in rayons between 79 cents and $1.50 a pair. That will help the holiday budget, at least! More and more smart women are wearing lisle and cotton hose and there is a surprisingly good assortment of these . . . finer weaves, more attractive designs and colors.

Gloves: For a generation shopkeepers and their customers have boasted of fine French and *imported* gloves. Well, it will swell your pride in the workmanship of your own countrymen to see the gloves that clever craftsmen are turning out up in New York state. You can give American suede, glace, pigskin or fabric gloves this year and be proud of your gifts. True, prices are somewhat higher than last year . . . the $2.25 glove of 1941 is $2.50 now and the $3 number is $3.50 the pair. But there will be plenty of $3.50 gloves that were $3.50 last year . . . no advance. Fabric gloves will be higher . . . $1.65 a pair last year, $2 this year . . . and $2 grades have gone to $2.25. But remember the glove maker is paying higher costs, too.



I found something new this year . . . American made and brand new . . . it's warm, smart and washable. It is a fine fabric glove, lined with split chamois. It will be $3 a pair.

Handkerchiefs: When you buy handkerchiefs you are going to pay more than in 1941. There will be plenty of 25 cent handkerchiefs for women . . . but they will be cotton instead of linen, in most cases. Those little hand rolled hems you picked up . . . novelties and prints for 18 cents and 25 cents last Christmas, will be 50 cents this year. There will be more machine and less handwork. Last year's 50 cent initialled handkerchief for men will be 65 cents.

Did I mention the fact that American makers show ingenuity? Here's something that proves it again. Globes . . . those colorful globes on which you trace your way, with fingers, around the world, are plentiful. Naturally they are popular now. But all the globes that my bookseller is retailing now are sold

with the understanding that the customer will be sent colored decalcomanias (without charge, if you please) to cover the spots where changes occur.



Scarfs: Christmas scarfs are time honored gifts. One dollar and $2.00 are popular prices at holiday time and, although they tell me there will be fewer silk and more rayons, there will still be plenty of scarfs, in good colors and designs, at these prices. Poking about in the scarf department, I ran across some perfect beauties. For years a Liberty scarf has been any woman's prized possession. The soft, exquisitely blended colors, the fine silks, have made them treasured accessories. This year American makers have done some beautiful work . . . and you will find $3.95 and $5.50 scarfs that compare favorably with the English ones.

From Christmas scarfs to Christmas ties is a logical step and I traced my way to the men's department, where I was assured there will be plenty of $1.00 ties. The quality may not be so good . . . but there will be a good range of colors and patterns and you can have a grand time choosing ties for the men on your list. Speaking of men's furnishings reminds me that you will pay 50 cents for the lisle socks that were 35 cents last year. Rayon socks will be 45 cents, three pairs for $1.25. No Nylons, some silks, mostly rayons and cottons this year for Dad.

Shirts: Shirt prices you will find about the same . . . there's no shortage of those $2.25 brands that the Adonises wear in the magazine ads. If you are thinking about a warm wool robe for any man, get it as soon as you can. Expect to pay $7.95 instead of $5.95 . . . last year's price.

All the radio commentators have been saying this conflagration was going to "touch all our lives". I knew it would cause many gloomy days, but now it has its effect on our preparations for the rainy day, too. There is a shortage of metal frames in umbrellas. Scarcely any of those attractive collapsible umbrellas women love so are left. What will the makers do about frames? Why they will simply use ten ribs instead of 16. Already there are some on the market, in the cheaper grades. And those "safety" umbrellas made of something called Pliofilm—try to get one now! That material had a rubber base. To cap the climax I learned that most of those wood and bamboo handles on men's umbrellas came from Japan. We've remedied that. There are now American products for the handles . . . but the supply is limited. Christmas umbrellas, feminine gender, are going to be very gay . . . lots of bright plaids. Popular prices will be $3 and $5, not higher than last year . . . just not so many of them.

Silverware: I was planning to send one of the young newlyweds on our list a piece of silver plate around $5 . . . note I said I *was* planning. The $5.50 piece I had in mind is now $7.50. And that's not all. Just at the moment there is a good assortment of silverware between $5 and $20 in the shops, "but, BUT . . . when this is gone!" they said, and looked very solemn. Because of the metal situation, there will be NO NEW PLATED WARE. If you want a piece for somebody, go get it now.

As for fine jewelry, all precious and semi-precious stones are higher . . . many are practically impossible to get . . . labor is away up . . . and prices will be much higher. How is your watch holding out? Did you plan to buy one for somebody at Christmas? There are not many American watches on the market. The skilled fingers that once made watches are now doing Government work, making instruments for airplanes and other highly specialized tasks. In one fine shop they showed me a case which normally holds a hundred American watches. Today it held ten. At another shop where they usually have from 50 to 60 of a certain American brand, they had exactly three. In another very little shop I found one—just one—famous make timepiece. There will be plenty of Swiss watches from $18.50 to $25.





From the other side of the counter, I salute the retailer as a good American who is doing a difficult job well

Lingerie: Who ever heard of a Christmas without lovely lingerie? I didn't. A line of the $2.95 silk slips and gowns that are sold each Christmas, would, if placed hem to hem, reach from here right to the Libyan front. Naturally I wanted to know if I could get some. I could. There will be plenty, they tell me, but they will be rayon and not silk. They are expecting to sell more flannelette gowns and pajamas for practical minded givers, and prices may be a little higher.

The number of husbands who buy lovely negligees for their wives would certainly make up an army. When the gentlemen do their Christmas shopping this year they will find negligees are shorter and narrower . . . probably more ankle lengths than robes trailing the floor. Makers are trying to get fabrics that will *look* fuller when they are made up, so they will not have to use so much.

If fruit cakes, plum puddings and cookies are on your Christmas list, and you buy them already made, you'll like

(Continued on page 80)



Fram President Harry T. Peters (left) and Treasurer James E. Bigwood consider the crisis presented by the tax bill's excess profits clause

Red Ink Won't Make Munitions

By J. HOWARD RUTLEDGE and JOHN FORBES

CONGRESS, tussling with the job of financing a war, may unintentionally strangle small business by taking away the money needed for growth

FRAM Corporation is worried about a problem.

If you knew Fram, that statement would be hard to believe, because Fram's remarkable growth has been a veritable Jacob's Ladder of problems faced and solved.

Indeed, history in the Fram Corporation is sometimes dated, not by the calendar, but by the solution of this problem or that:

"That was about a week after Jim Bigwood rigged up the talking machine as a rotating table for spraying in the painting department."

Or:

"I think that was just a day or so after the 1938 hurricane when there wasn't a kilowatt of electric power in Rhode Island, and we were running the plant on that generator which Carl Hockett hooked up to the Ford motor."

Or:

"It was about three months before we went down to the bank to see Frank Ryan about a loan of $25,000—AND GOT IT!"

Or even:

"It must have been a couple of days after the boss, Steven B. Wilson, went away to his second World War."

Few of Fram's problems have been ordinary ones. But none has been so great that courage, resourcefulness, enterprise, hard work couldn't vanquish it; and once you get accustomed to employing courage, resourcefulness, enterprise and hard work, you begin to believe in them as invincible.

Their effectiveness makes you forget even growing pains, and a corporation that beanstalks from sales of $18,000 in 1934 to more than $4,100,000 in 1941 is likely to have growing pains.

But Fram faces today a problem that



Symbol of Fram ingenuity, the phonograph turntable which increased painting speed three times

may prove bigger than it is. Fram believes it is more than a problem—it may be a death sentence.

It's as though a doctor, from whose decision there is no recourse, were about to prescribe wholesale amputation to cure Fram's growing pains.

The doctor is Uncle Sam.

The knife is the House-passed excess profits tax.

Helping the war effort

BUT what is Fram, that anyone should be concerned about whether it lives or dies these busy war days?

Ask the man who drives an American tank through the burning sands of the African desert.

Ask the crew of an American Army truck, rushing vital supplies over the war highways of the world.

Ask the crew of an American bomber, bound for a mapped destination with a bayful of fire and destruction for enemy concentrations and installations.

Fram is an oil filter for motor vehicles, tanks, trucks and pleasure cars.

It is an incendiary bomb.

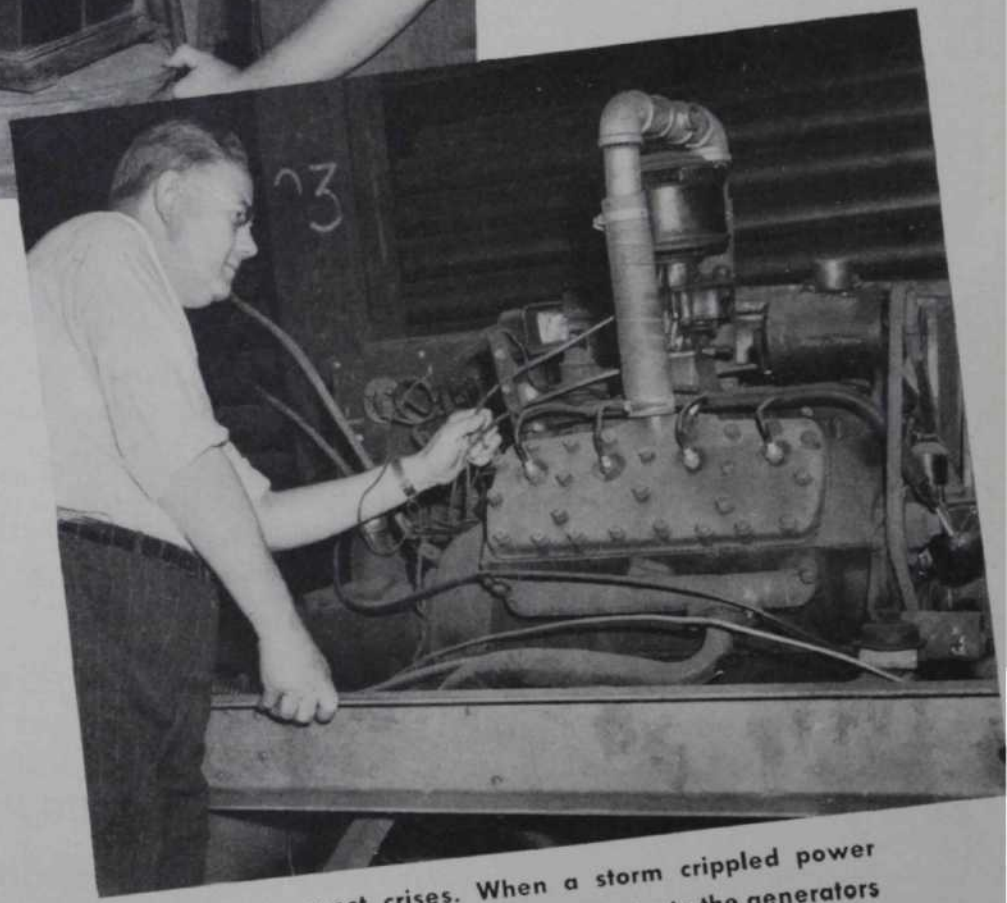
It is a bomb nose-fuse.

It is an experimental laboratory, cooperating night and day with the Government in vital experimental work.

Fram is 1,200 persons, working overtime in four guarded plants to help win the war.

It is nearly 100 men—its board chairman, Wilson, included—actually in the Armed forces.

It is one of the "little businesses" which the Government has said it would protect, although, as the new president, Harry T. Peters said, "We're now being treated as big business, without getting the breaks the excess profits tax assures big business."



Fram conquers most crises. When a storm crippled power lines, Carl Hockett hooked up this Ford motor to the generators

Fram is not merely important because of the principle of fair play involved, because of the 1,200 men and women who face loss of their jobs at the very time when they are helping to win the war.

It is important also because Fram is one of the many new and growing concerns which may not survive the tax in its present form.

Fram is not shaking its fist at the Government and shouting, "You can't do this to us."

Its attitude is simply that those who framed the tax bill as it passed the House honestly overlooked the plight of small, fast-growing industries when they set the base income period. Under the terms of the bill the years 1936 through 1939 are set as the base income period. (An "alternative growth" period, 1938-39, which Fram uses may be included in the bill.) Any income exceeding that of the base period is subject to the 90 per cent excess profits tax.

Because Fram was a little business taking its first steps in the proposed base period, excess profits taxes levied on the basis of its profits in those days would be an unbearable burden. Moreover, a larger and long-established competitor in its field would gain such a great advantage that Fram no longer

could market its chief product on a competitive basis, and hence, not at all.

Fram's tax situation is as simple as this:

Under the House bill formula for assessing taxes according to past earnings, the company is allowed a normal income base of $110,608.25. All earnings above this figure are subject—under the pending bill—to the excess profits tax.

Fram estimates its earnings before taxes for 1942 as $675,000. Out of this, if the 90 per cent profits tax is imposed, it would have to pay $557,726.29 on this levy and the normal income tax and surtax.

But here are three points which demonstrate the unfairness of the House bill as it applies to Fram:

1. How it affects Fram as contrasted with other U. S. corporations:

Whereas, it has been estimated, industry at large must expect to pay out two of every three earned dollars in federal taxes this year, Fram, with less capacity to pay than most companies, would be assessed about five of every six dollars it earns.

2. How it affects Fram in relation to its principal competitor:

Figured on the basis of its earnings for the first four months of this year, Fram, already operating on borrowed capital, would have to kick back 84.2 per cent in taxes. Its bigger rival, on similar earnings, would pay only the normal income tax and surtax rates of 45 per cent.

3. How it affects Fram as related to the war effort:

The company would be so hard hit by the proposed 1942 taxes that it would not have enough left out of earnings (estimated) to pay for expansion to fulfill existing war contracts The remaining earnings would total only $117,273.71 (estimated). The war expansion costs are figured at $191,887.24.

Was growing instead of earning

ALL of these inequities exist because of the years used in the House bill for computing a normal income base. Corporations which were well established in those years receive a relatively fair base. Fram made no money at all in the first two years of this period and comparatively small earnings in the final two years. Thus it gets a palpably lower base. Even the "alternative growth" method designed to help new companies does not go far enough in Fram's case.

Another incongruity in the tax bill is that, if Fram had not put so much back into the company, had not increased its size, it could have today a substantially higher base and would pay substantially lower taxes.

What price initiative? ask the Fram people.

A brief financial history of Fram will show how it built up, year by year, to 1942 when it expects to do its greatest volume—$5,000,000—unless taxes throttle it.

Established in 1934, the company showed no profit at all until 1938 because Wilson believed in plowing potential earnings back into the business, principally for advertising and sales promotion.

In the years 1935, 1936 and 1937, one-quarter of the gross sales was spent for sales promotion and advertising. In 1938, Wilson began to demonstrate how multiplied volume can cut down unit advertising and selling costs. That year, with sales up to $835,853.82, it showed its first profit, $47,538.53. The next year, sales were virtually doubled, totalling $1,576,067.88. Earnings were $87,607.14.

The year 1940 added more than $1,000,000 to sales but expansion and other costs held profit to $57,001.15.

The Fram Corporation built toward 1941. As far as sales were concerned—$4,107,202.12—it did not build in vain.

(Continued on page 96)



These girls, packing oil filters, are among the 1,200 Fram employees who may be left without jobs if the excess profits tax, as passed by the House of Representatives, becomes law

Departmental Ditties of 1942

By BERTON BRALEY



Key Position

Professor, may I humbly quiz?
In Washington, I ask, what is
 Your job, oh Learned One?
—The contents of department files
I estimate in cubic miles
 And also by the ton.

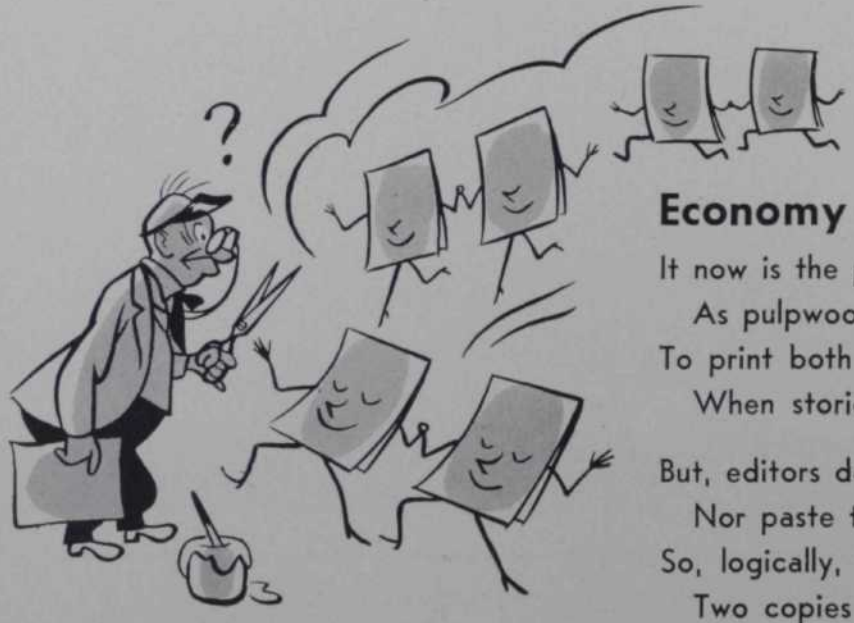
Goat Brigade

Who are these battered fellows,
 Targets of verbal clouts,
Loud Congressional bellows,
 Senatorial shouts?
Who are these sad and drear men
 All in a frightened clump?
They are the dollar-a-year men
 Who got us "over the hump."

They are the dollar-a-year men
 Who made production soar.
Sock 'em under the ear, men,
 Kick 'em around the floor!







Economy

It now is the proper caper
 As pulpwood supply grows less
To print both sides of the paper
 When stories are sent the Press.

But, editors do not clip them
 Nor paste that type of "release"
So, logically, we slip them
 Two copies of every piece.

Detour

Lassie, if you seek romance,
Washington is not your
chance.

Girls to men, in Washington,
Run in ratio six to one,

And the men are either
wedded
Or goshawfully swell-headed.

Though your beauty's won
you fame
Here, you're just another
dame.

Seldom, in the Capital,
Will you meet a chap at all,

Lassie, give this town the
go-by;
If you're looking for a beau,
buy

Tickets to some other sod
Where the odds are not so odd.



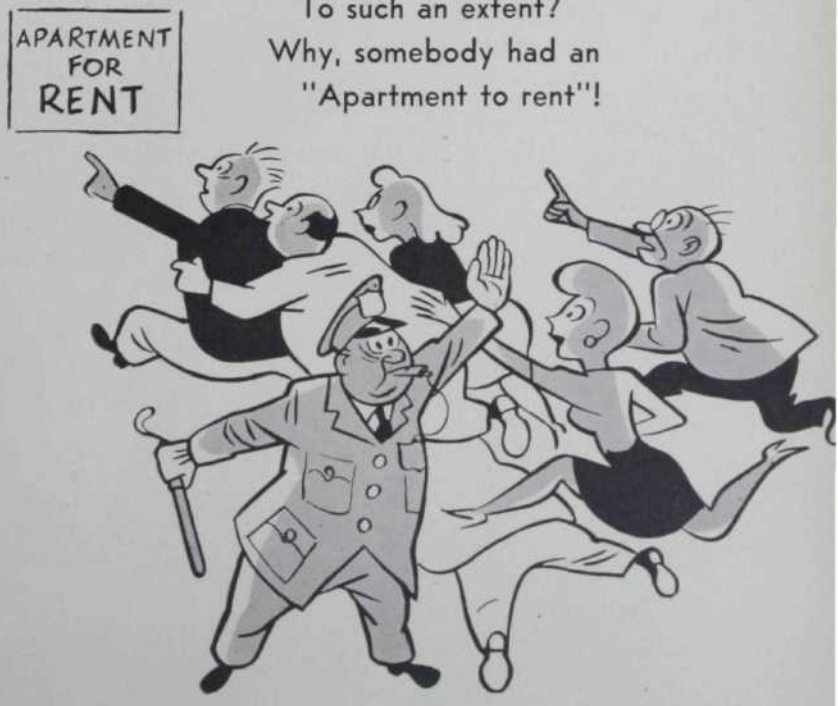


Alphabet Instruction

Long lines of people wait and wait
In offices, hotels and stores,
From early morning till it's late
The queues are formed at many doors,
For Washington is full of these
You can't escape them if you choose,
—You may not have to mind your "p's"
But you have got to mind your queues.

Room Rumor

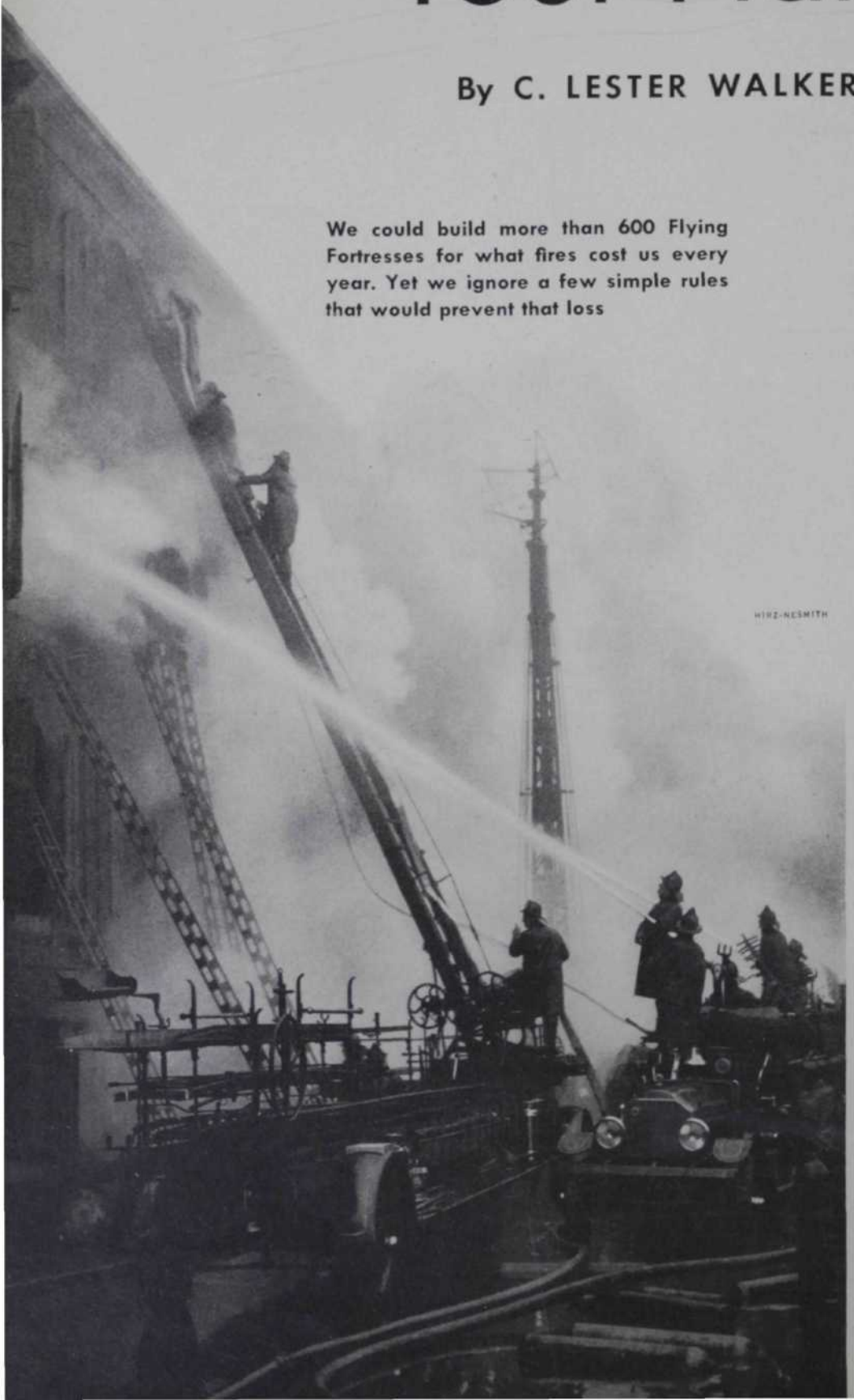
What is it this thick and
Jammed multitude means?
Bring riot squads, quick, and
Call out the Marines!
What makes people madden
To such an extent?
Why, somebody had an
"Apartment to rent"!



FIRE—The Enemy in Your Plant

By C. LESTER WALKER

We could build more than 600 Flying Fortresses for what fires cost us every year. Yet we ignore a few simple rules that would prevent that loss



ONE DAY last October the gentlemen who manage the Government's Rubber Reserve Corporation were feeling pretty good. They had just collected at the plant of one of the big rubber companies one of the largest crude rubber stock piles in history. It equaled one-tenth of the Government-owned reserve supply. There was 31,700,000 pounds of it—enough for more than 2,000,000 tires. Pretty valuable, all right, for tanks and jeeps and other military vehicles, if war ever came. A few days later fire wiped out the entire supply.

That same week a fire started in the plant of a magnesium company. Suddenly the whole place went skyward in a blast of explosion and flame. It had been making finely powdered magnesium for parachute flares, tracer bullets and incendiary bombs—one-third of the national production.

Then, in March, a warehouse burned. It housed $250,000 worth of silk for Army and Navy parachutes.

Fires like these are today burning up the sinews of war in plants all over America at a rate that is increasing all the time.

A cork products company determined to lay in a year's supply of cork in case the war shut off shipments from Spain. Unfortunately it crowded 10,000 tons into a nine-acre yard. Some of the piles reached up 30 feet. Cork is used in the manufacture of munitions, and there are drastic priorities on it today but fire wiped out that 10,000 tons in one day.

Our suits, we are told, are to have no lapels, our trousers no cuffs because of a wool shortage. On March 6 in this year of our war, fire destroyed a warehouse and took with it 1,500,000 pounds of wool.

Make no mistake, the fire trend right

(Continued on page 82)

FIRE PREVENTION WEEK · 1942

★ ★ ★

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A Proclamation



© HARRIS & EWING

ANY LOSS of human life, any interference with production, any loss of critical materials hinders and impedes our war effort.

Uncontrolled fire, even in normal times, is a national menace. It kills or disables thousands of our people and destroys a significant portion of our national wealth each year. Today, when every machine is being taxed to its fullest productive capacity, when new hands are working with unfamiliar tools, and when agents of our enemies are seeking to hinder us by every possible means, it is essential that destructive fire be brought under stricter control in order that victory may be achieved at the earliest date.

Nothing less than the united vigilance and effort of all the people will suffice to break the grip of this menace. Fire hazards everywhere must be detected at once and eliminated. Loss of life and property from blaze and smoke must be reduced in every State of the Union. Prevention of all uncontrolled fires must be our goal.

Now, therefore, I, FRANKLIN D. ROOSEVELT, President of the United States of America, do hereby designate the week beginning October 4, 1942, as Fire Prevention Week; and I earnestly request the people of the country to give special heed to the importance of taking active measures during that week, and throughout the year, to conserve our human and material resources from the destructive toll of fire; and I direct the Office of Civilian Defense and other appropriate Federal agencies to initiate programs for emphasizing the importance of attaining these objectives. I also desire to enlist the cooperation of State and local governments, of educators and civic groups, and of the press, the radio, and the motion-picture industry, with a view to promoting widespread realization of the dangers of fire and knowledge of the methods of controlling it.

In witness whereof, I have hereunto set my hand and caused the seal of the United States of America to be affixed.



Franklin D. Roosevelt



FERRIS—NESMITH

Your Son's a Better Soldier Than You Were

By HERBERT COREY

AS A REPORTER here and a war correspondent abroad, Mr. Corey got a good look at the 1918 army. We asked his opinion of today's "deluxe" outfit. His view: "It's 'deluxe' all right, but, Brother, don't get in its way"

HARRY HOPKINS said that ours is the "most *de luxe*" army in the world. No doubt he is right. Four million soldiers —the President was not certain within 500,000 men either way—live like particularly favored fighting cocks in the establishment of a man who believes a game chicken is the noblest work of God. A professional pigfeeder has the table refuse contract at one of the southern camps. This excess used to be called garbage.

"Captain," he said to the table refuse commander, "I wish my family could eat as well as my pigs do."

He remarked, however, that although his pigs are contented, they are not refined.

"You don't have to send 'em all that silverware."

There are probably not more than three or four kings in the world who could save enough money out of personal earnings to buy the bed the American soldier sleeps on. He has ten pairs of shoes—constructively—and every four months the custom shoemaker measures his feet for a new pair, in case their contours have slipped during training. So far as my non-military eye perceives the private is as well dressed as the brigadier general except that the b.g. may have a little technicolor on the left breast. His uniform fits him nowadays.

In the First World War the neck aperture of some private soldiers' tunics sagged as far as the cigarette pocket. Other privates seemed to have been optioned for death by strangulation. Leggings were wrapped in a lump at the ankle and tapered toward the knee, giving the crusader for democracy an oddly pyramidal structure. If he stepped on the rear part of his pants when he tried to double-quick, the top sergeant bellowed like a burst of static. Nowadays the sergeant tries to keep the proper military snap in his tones and yet convey the impression that he is just a good pal. Should he revert to bull-roaring, some old regular army



1. ***Today, America has one purpose...to win the war.***

IN YOUR NAME, and in the name of 64,000,000 fellow Americans who also own life insurance policies, the Institution of Life Insurance is bending its energies to this great all-out effort. Do you know how *your* life insurance dollars are helping?



2. PART OF THE MONEY you pay as premiums on your life insurance goes into reserves . . . and these reserves are invested to earn the interest that helps pay the cost of your insurance. Today a larger and larger part of these life insurance reserves is helping the United States Government, and the Canadian Government, to finance the war program.



3. AT THE END OF 1941, life insurance companies had invested 6 billion dollars in United States Government Bonds. This is about 20% of all life insurance company assets. Metropolitan alone now has more than $1,350,000,000 invested in United States Government Bonds. This represents over 24% of the Company's assets. In addition, Metropolitan has more than $115,000,000 invested in bonds of the Canadian Government.



4. THESE LIFE INSURANCE DOLLARS are helping to buy planes, tanks, ships, guns, bombs, shells, and weapons of all kinds to safeguard our lives and liberties. Still other dollars, invested in American industry and agriculture, are helping to finance transportation, the production of power, steel, chemicals, oil, food, and other materials necessary to ultimate victory. So for the duration of the war, you can have the satisfaction of knowing that more and more of the dollars you have invested in life insurance are flowing to the place where they are most needed . . . our nation's war chest!

BUY WAR SAVINGS STAMPS FROM ANY METROPOLITAN AGENT, OR AT ANY METROPOLITAN OFFICE

COPYRIGHT 1942—METROPOLITAN LIFE INSURANCE COMPANY

Metropolitan Life Insurance Company

(A MUTUAL COMPANY)

Frederick H. Ecker, CHAIRMAN OF THE BOARD *Leroy A. Lincoln*, PRESIDENT

1 MADISON AVENUE, NEW YORK, N. Y.

This is Number 52 in a series of advertisements designed to give the public a clearer understanding of how a life insurance company operates. Copies of preceding advertisements in this series will be mailed upon request.

colonel likely will wish to be told by this and that what the high-toned damnation the sergeant meant by it. The soldiers salute, mostly because they are good soldiers and realize that saluting is a mark of respect for their officers. If a soldier inadvertently or unintentionally missed a salute he would not do pack drill in the hot sun for the good of his memory. He sleeps between sheets when he is in barracks and, if he is sent to Alaska, his furs cost almost as much as the little thing Mrs. Barbara Mdivani Haugwitz Grant slips on when she goes walking with her dogs.

The evidence seems to be that Harry Hopkins was right. It is a *de luxe* army.

No one would say that it is a soft army. The testimony is that it is a tough army physically. This is supported by the evidence of Wake Island and Pearl Harbor and Bataan. An American officer, recently returned from an observation tour in Libya, reported that the American tank soldiers in the African fighting stood to their guns like veterans.

"Scared a little at first, maybe—nervous—but when the fighting started, you'd think they had been at it all their lives."

The Army is cynical, intelligent, and grim, its officers say. It will fight magnificently and angrily. But no army in the world is as well informed on world strategy, economics, history and American politics:

"My company is not an unusual one," one officer said. "The intelligence level is very high. The talks I hear are astounding."

Interested in post-war plans

HE observed that many of the men went into the First War as an adventure:

> No signs of that in this war. The men are serious, eager to get into it and get it over with. When they come home they'll have questions to ask. The talk in my company at night is likely to be on taxation, what will happen after the war, and the fumbling of amateur strategists. The men are savagely loyal but they are realists. That's the way they strike me.

A demurrer may be set up to any generalization. The army camps are well drained, the water is plentiful and

ACME



If he is sent to Alaska, his equipment, costing $1,000, includes furs a debutante would be proud to wear parading on Fifth Avenue

World War mess sergeants bought the food. Good sergeants served good meals. Now meat is bought in bulk, cut, wrapped, and sent to camps. So are other items the soldiers eat

U. S. ARMY SIGNAL CORPS



THE MAN WHO NEVER HAD TO HAVE HIS SUIT PRESSED



• It's a far, far cry from armored knights to armored divisions . . . from the warrior in his iron cocoon to the airman laying death-eggs that hatch loudly for freedom.

• It's a far cry, too, from the armorer at his hand-forge to the mines, mills, shops, factories and assembly lines that are girding this nation for totalityranny's downfall.

• In the office-adjuncts to these victory-roaring plants, Comptometer adding-calculating *machines* and time-saving Comptometer *methods* are a double-barreled weapon in Management's arsenal . . . helping to produce vital control figures accurately, speedily and economically.

• *Felt & Tarrant Manufacturing Company, 1712 N. Paulina St., Chicago, Ill.*

COMPTOMETER

REG. U. S. PAT. OFF.

ADDING-CALCULATING MACHINES

healthful, the barracks and cots are screened against mosquitoes and flies. The food is excellent and well cooked. Yet there is at least one camp which as this is being written is being chopped out of a swamp. The latrines are stinking trenches. Not enough boards have been provided to floor the tents. The mud splashes to the knees on the company streets and there is but one medical officer. That camp is being cleaned up.

The men are almost incredibly healthy. Soldiers are that way in every army, of course, living as they do on a diet that would make the pineapple chunk and vitamin advocates cry like little children. In the First War hundreds of thousands stood all day in trench mud to their knees and slept at night in gas-curtained mudholes in an atmosphere composed of body odors, candle smoke and rat smell and while they were bothered by trench mouth and a flu epidemic and pneumonia and cooties the death rate from these and affiliated miseries was unbelievably low. Typhus hit the Russian and Serbian armies hard but the men in the west escaped. In the American army during the training period the health may be accounted for by three primary reasons:

The physical standard demanded of the men drafted for the first 4,000,000 was very high.

They were well fed and worked hard.

They were extraordinarily intelligent.

It is true many cases of jaundice were recently reported but this seems to be accounted for by some defect in the "shots" given the men to immunize them from tropical diseases. The death rate previously had been little more than three to 1,000, apart from deaths resulting from combat. It is perhaps not to be wondered at, when the fact is considered that the New Army is largely mechanized, that two of the three deaths resulted from accidents in handling jeeps or artillery, plus a few drownings. There were few accidents in the Service of Supply—thanks to good discipline and careful training—and yet the S.O.S. has ten models of all-wheel drive trucks which are beyond doubt the fastest and most powerful in use in any army.

The driver of one of the "Superman" trucks—a six-wheel drive, six-ton monster which, carrying 40,000 pounds and hauling eight more tons in the trailer, can do 35 miles an hour on a decent road—boasted that it took a real man to handle his baby:

"The power scares lots of 'em," he said. "I seen a full general try to drive her and when he got out of the cab he put his lunch."

Those who were drafted began to get food of a quality to which they had not been accustomed. This is not an overt shot at the home table. Many

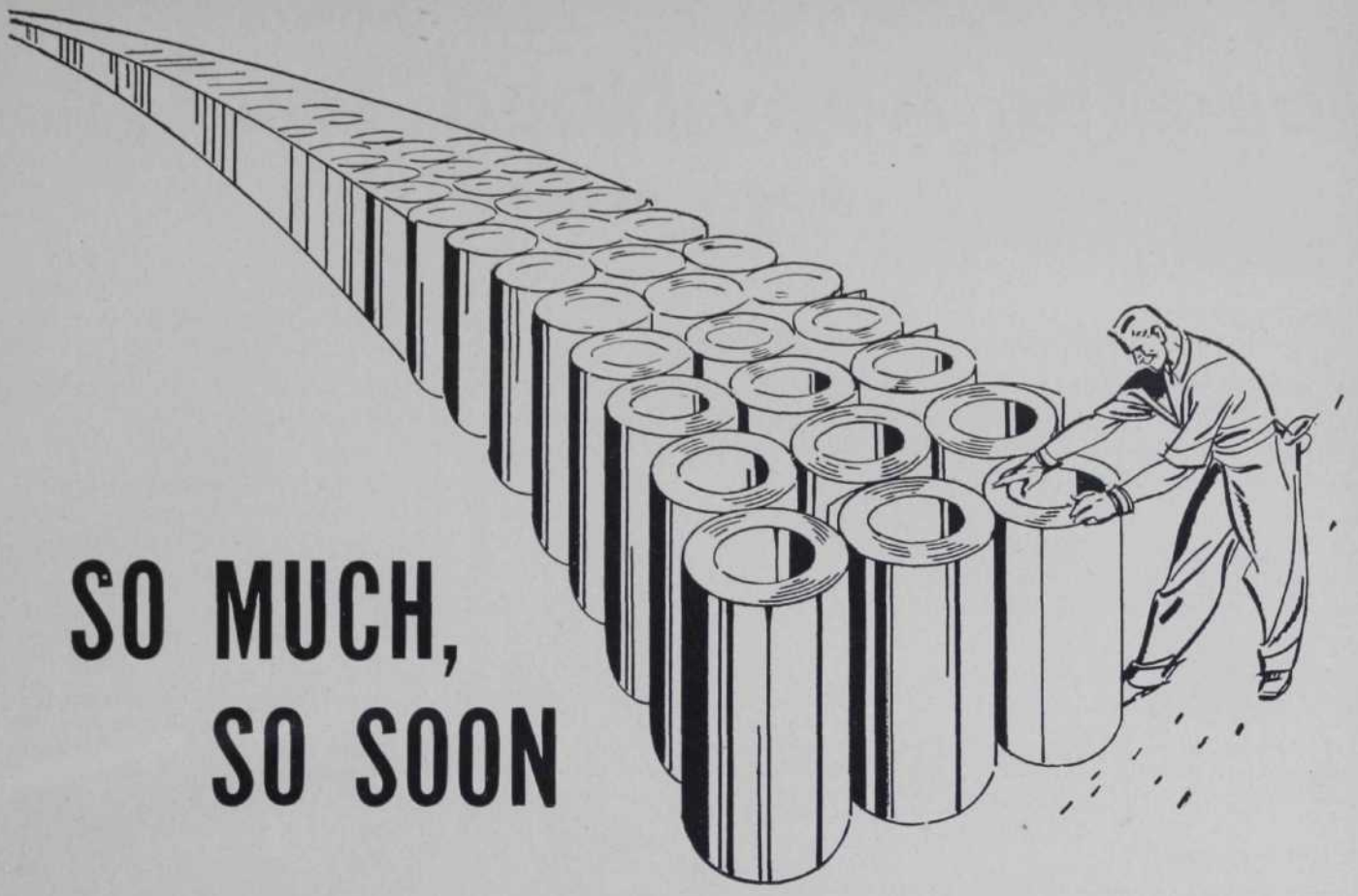
(Continued on page 88)



British use bags filled with animal blood in bayonet practice to instill hate. We don't need 'em. Officers say: "Our boys hate noble."



Men who can't be fitted with one of the 142 sizes, six lasts, of shoes, get special ones, with replacements as needed



SO MUCH, SO SOON

ALL INDUSTRY has earned its laurels in war production. The people are beginning to understand the magnitude of the job that has been done, so far, with more astounding results to come. So Much, So Soon, has not been easy, for *anybody*.

Here at Alcoa, So Much, So Soon, came out of a *very* early start on expanded capacity. That expansion was not just a matter of adding, but of multiplying, all along the line. We are making more aluminum in one month than we did in a whole year, not so long ago. The curve is still rising, steeply, to match the curve of plane schedules. Our sector of war responsibility, like yours, is being met.

After the war, industry will have a different kind of war responsibility. All of us will be looked to, to make so many jobs, so soon.

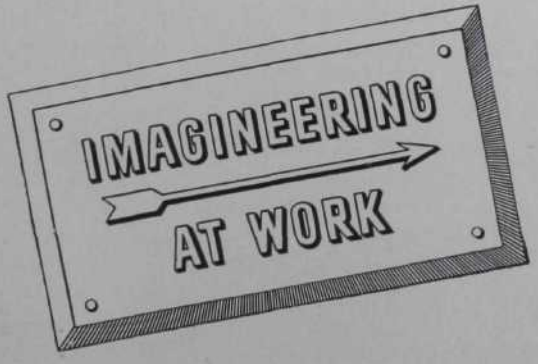
If we can do that, we shall have won the peace as well. Jobs make buying power. They pay taxes. They give men the dignity they want above all else.

Many jobs, the millions of jobs that will be needed, must come out of new things to make. Final blueprints cannot be drawn now, of course. But the Imagineering can be done. Let your imagination soar, then engineer it down to earth with all the technical advances the war has stimulated.

The Bonds you buy today will be the priming of the market. The Imagineering you do will be the stimulus.

Among other things, Alcoa Aluminum, cheaper, better, still more versatile, has new and startling potentialities you should be exploring, against that day.

ALUMINUM COMPANY OF AMERICA, 2125 Gulf Building, Pittsburgh, Pennsylvania.



ALCOA ALUMINUM

Does The Army Need You?

By MAJ. GEN. DWIGHT F. DAVIS
Director General, Army Specialist Corps

THE ARMY NEEDS MEN.

It needs business men, professional men, engineers, technicians, administrative officers and others with special skills and qualifications.

It wants the services of men who, because of age, physical handicaps or other restrictions, are ineligible for combat duty, but who patriotically desire to be useful and are asking "What Can I Do?"

The Army Specialist Corps is the instrumentality through which such men may serve.

Recruiting is now going on. Hundreds of applicants have been approved. Among them are leading business and professional men.

Field offices to supply information and application blanks are being established from coast to coast.

If you want to offer your services, here's what to do:

What is the Army Specialist Corps?

It is a branch of the War Department, operating under direction of the Secretary of War.

Why was it created?

Briefly, it was established to create a reservoir of certain qualified specialists skilled in every line of professional and business activity to be available immediately their services are needed. In accomplishing this the Army Specialist Corps can go farther than the Army of the United States in appointing those who because of age, physical handicaps, or other restrictions, are not eligible for appointment to the regular Army. Members will perform non-combatant duties of certain military personnel, thereby relieving the latter for combat and command duties. Once selected, these men will be assigned to the branch of the Army requiring their services, and will be subject to its orders and jurisdiction.

Who is eligible for appointment?

Men who are citizens of the United States, who have the special qualifications required for the jobs they seek to fill, and who can pass a physical examination based on the character of the work to be done. Applications will *not* be considered (1) from men liable for military service when their selective service classification is 1-A regardless of age; (2) from men who, in the opinion of the Selective Service System, are essential in their present occupations; and (3) from men who are under 30 years of age unless their selective service classification is IV-F, or unless they are possessed of unusual qualifications that are so scarce as to make this necessary, such as electrical engineers trained in electronics.

What type of work will the Corps do?

The greatest present demand arises in the Services of Supply, which cover such activities as the procurement, transportation, storage and distribution of supplies and materials, movement of troops, construction and maintenance of engineering works, and operation of the Army's great system of communications. As an illustration of the diversity of occupations for which men are sought, appointments have been requested in such fields as appraising, traffic, warehousing, materials handling, plant protection, geography, metallurgy, machine parts inspection, editing of technical service publications, mechanical and communications engineering, explosives, utilities operations, and censorship. Functions of appointees include research, design, management, and operation.

How do you apply for appointment?

By filing a placement questionnaire which records basic data concerning the applicant and his experience. Copies of this questionnaire, known as W.D.A.G.O. Form 0850, may be obtained from the Army Specialist Corps headquarters, War Department, Washington, D. C., or through Service Command headquarters in the nine corps areas of the United States and district offices. District offices will be established in Boston, Hartford, New York City, Albany, Buffalo, Baltimore, Philadelphia, Pittsburgh, Richmond, Atlanta, Tampa, Nashville, Birmingham, Cleveland, Cincinnati, Columbus, Indianapolis, Louisville, Chicago, Milwaukee, Detroit, Omaha, St. Louis, Minneapolis, Denver, Kansas City, San Antonio, Dallas, Houston, New Orleans, San Francisco, Los Angeles and Seattle.

How are the questionnaires handled?

They are forwarded to the Adjutant General of the War Department, and a board comprised of representatives of the regular Army and of the Corps passes on each application. If the applicant is qualified, he is notified of his eligibility and is then recommended by the Corps to the military branch which is requisitioning a man of his qualification. If accepted by the military branch, the appointment is then made through the Corps.

What is the term of service?

Unless sooner terminated, appointments will be for the duration of the present war and for six months after the war ends. In some cases temporary appointments may be made for shorter periods.

Will service be restricted to Continental United States?

No. Members will serve with the armed forces wherever they may be.

Will all men have officer rank?

No. Two classifications are provided: Commissioned officers and non-commissioned specialists. In each case the men will receive approximately the same rank and pay as the regular Army men performing the same duties. For the time being, however, all men selected for service in the Continental United States will have officer rank, while both officers and non-commissioned specialists will be designated for service in the foreign field.

What is the range in pay?

Titles and range of pay for officers are approximately as follows:

Major General	$8,000 to $9,000
Brigadier General	8,000 to 9,000
Colonel	6,500 to 7,500
Lieutenant Colonel	5,600 to 6,400
Major	4,600 to 5,400
Captain	3,500 to 4,600
First Lieutenant	3,200 to 3,800
Second Lieutenant	2,600 to 3,500

Titles and range of pay for the non-commissioned specialists are approximately as follows:

First Class	$2,900 to $3,500
Second Class	2,600 to 3,200

(Continued on page 103)

Why the average soldier gains 7 pounds during his first month in the Army



Uncle Sam prescribes A POUND OF MEAT PER DAY for every soldier in this best fed army in the world! . . .

The first concern of any good mother is that her boy gets plenty to eat. And Uncle Sam's Quartermaster Corps is just as solicitous for every man in our fighting forces today. Their meals are so nourishing and well balanced, the average soldier gains 7 pounds during his first month in service. Some gain as high as 20 pounds. And it's *not* soft fat. For ours is a meat-eating, active army. Every day each and every man in service gets a pound of muscle-building meat.



No great new plants had to be built or financed by our government to feed our growing army. War found the meat industry ready! Right now, Armour and Company and the other meat packers are shipping millions of pounds of meats, poultry and dairy products *each day* to the army alone. Armour is also providing tons of foods daily for our allies through lend-lease. And supplying a major share of the meat for our folks at home. Not always in unlimited quantities to the home front — our boys in service come first. We are all-out to win this war!

Armour and Company

LOOK AT THE MEALS HE GETS

Here is an actual week of Army menus — meals typical of those served to soldiers of the 6th Corps Area during the week of September 6. How do they compare with those served in your own home?





SUNDAY

BREAKFAST	DINNER	SUPPER
Oranges	Roast Duck with Sage Dressing and Giblet Sauce	Cold Sliced Bologna, Liver Sausage, Sliced Cheese
Corn Meal Mush	Candied Sweet Potatoes	Boiled Kidney Beans
Fresh Milk	Green Peas	Bread—Butter
Pork Sausage	Bread and Butter	Celery
Fried Potatoes	Vegetable Salad	Dill Pickles
Toast—Butter	Chocolate Pie	Sliced Peaches
Coffee	Coffee	Tea

MONDAY

BREAKFAST	DINNER	SUPPER
Stewed Prunes	Puree of Bean Soup	Roast Beef
Assorted Cereals	Boiled Corned Beef	Mashed Potatoes
Fresh Milk	Boiled Potatoes	Buttered Spinach
Tomato Omelet	Boiled Cabbage	Bread—Butter
Fried Hominy	Boiled Turnips	Sliced Raw Carrots
Toast—Butter	Bread—Butter	Apple Cobbler
Coffee	Sliced Onions	Cocoa
	Bread Custard	
	Lemonade	

TUESDAY

BREAKFAST	DINNER	SUPPER
on	Roast Beef	Hamburger Steaks
rried	Browned Potatoes	Fried Onions
otatoes	Buttered Green Beans	French Baked Potatoes
Toast	Bread—Butter	Catsup—Pickles
Butter and Jelly	Pineapple and Cabbage Salad	Bread—Butter
Coffee	Ice Cream	Baked Apples
	Tea	Jam
		Cocoa



WEDNESDAY

BREAKFAST	DINNER	SUPPER
Grapefruit	Rice and Chicken Soup	Steamed Frankfurters
Assorted Cereals	Chicken a la King	Sauer Kraut
Fresh Milk	Mashed Potatoes	Boiled Potatoes
Bacon and Scrambled Eggs	Bread—Butter	Bread—Butter
Toast—Butter	Lettuce and Tomato Salad	Sliced Onions
Coffee	French Dressing	Apricot Cobbler
	Apple Pie	Tea
	Lemonade	





THURSDAY

BREAKFAST	DINNER	SUPPER
Tomato Juice	Vegetable Soup	Lamb Pot Pie
Rolled Oats	Beef Loaf with Tomato Sauce	Baked Squash
Fresh Milk	Baked Brown Potatoes	Buttered Corn
Fried Eggs	Buttered Spinach	Bread—Butter
Diced Potatoes	Bread—Butter	Raisin and Carrot Salad
Toast—Butter	Onion and Beet Salad	Mayonnaise
Coffee	Devil's Food Cake	Apple Sauce
	Tea	Cocoa





FRIDAY

BREAKFAST	DINNER	SUPPER
Apples	Roast Lamb—Mint Jelly	Clam Chowder
Assorted Cereals	Mashed Potatoes	Salmon Loaf with Cream Sauce
Fresh Milk	Cauliflower	Green Peas
Bacon Omelet	Bread—Butter	Bread—Butter
Cottage Fried Potatoes	Lettuce Salad	Jam
Toast—Butter	French Dressing	Sliced Tomatoes
Coffee	Ice Cream	Cup Cakes
	Coffee	Tea

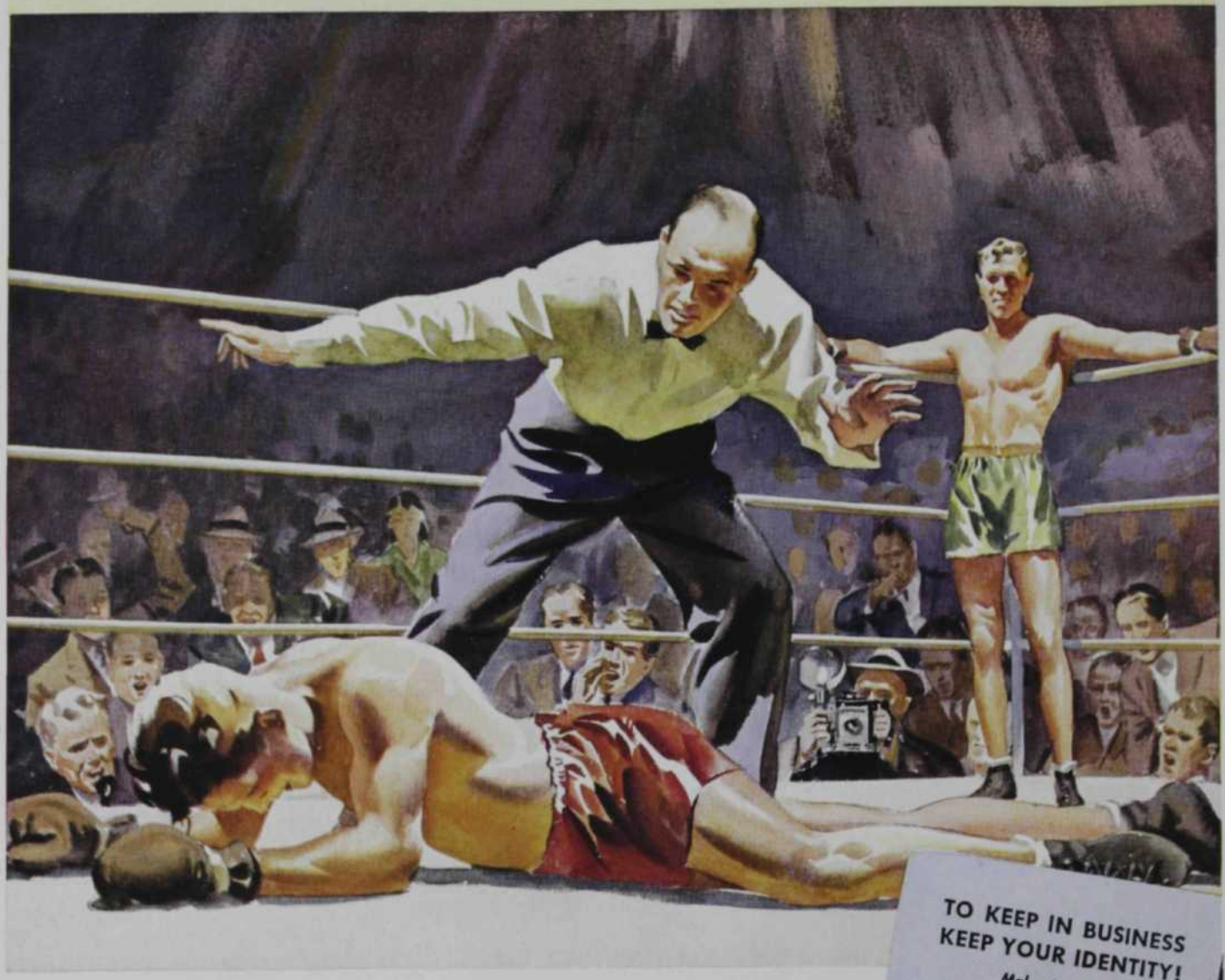
SATURDAY

BREAKFAST	DINNER	SUPPER
Grapefruit Juice	Split Pea Soup	Fried Beef Liver
Corn Meal Mush	Breaded Pork Chops with Brown Gravy	Fried Onions
Fresh Milk	Potatoes au Gratin	Cheesed Potatoes
Pork Sausages	Green Beans	Buttered Carrots
French Toast	Bread—Butter	Bread—Butter
Bread—Butter	Sliced Tomatoes	Combination Salad
Coffee	Butterscotch Pie	Rice Custard
	Lemonade	Coffee



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They seldom come back . . .



ANY ex-champion will tell you an attempted come-back is far more difficult and costly than the defense of a title. A champ, once eclipsed, seldom, if ever, regains his title.

Many manufacturers have learnt this lesson, too! They know that if a product's reputation is blacked out . . . if once a brand name's prestige is lost, it is next to impossible to regain. Therefore, to protect their own interests, to protect investors, and to aid in assuring continuation of the American economic structure, far-sighted executives guard their champion's name against an all-shattering K. O. with advertising!

Maintaining prestige and good will for products temporarily off the market is a job the printed word can do and is doing economically. A few suggestions for this purpose are listed in the panel on this page. For some lines, a mailing at regular intervals of only a few thousand folders based on any of these subjects will suffice to maintain business identity; for others, publication advertising is required. Whichever the case may be, protect and strengthen your identity—*let there be no K. O. of your good name!*

TO KEEP IN BUSINESS KEEP YOUR IDENTITY!

Make Contacts with Paper and Ink

Promote sale of Government bonds and stamps.

Promote national unity.

Tell about your war work.

Tell about prospective improvement of your line.

Tell reasons for scarcity of your merchandise.

Advertise products you can supply.

Discourage hoarding of your products.

Tell how to conserve your products.

Trufect*
For Highest-Quality Printing

Kimfect*
Companion to Trufect at lower cost

Multifect*
For volume printing at a price

*Levelcoat** PAPERS

*TRADE MARK

KIMBERLY-CLARK CORPORATION • **Neenah, Wisconsin**

Manufacturers • Established 1872

NEW YORK: 122 E. 42nd St. • CHICAGO: 8 S. Michigan Ave. • LOS ANGELES: 510 W. 6th St.

The Why's and If's of Shortages

By R. L. VAN BOSKIRK

"ARE sugar warehouses bulging?" "Is rationing somebody's whim?" War confusion inspires such questions. The answers—

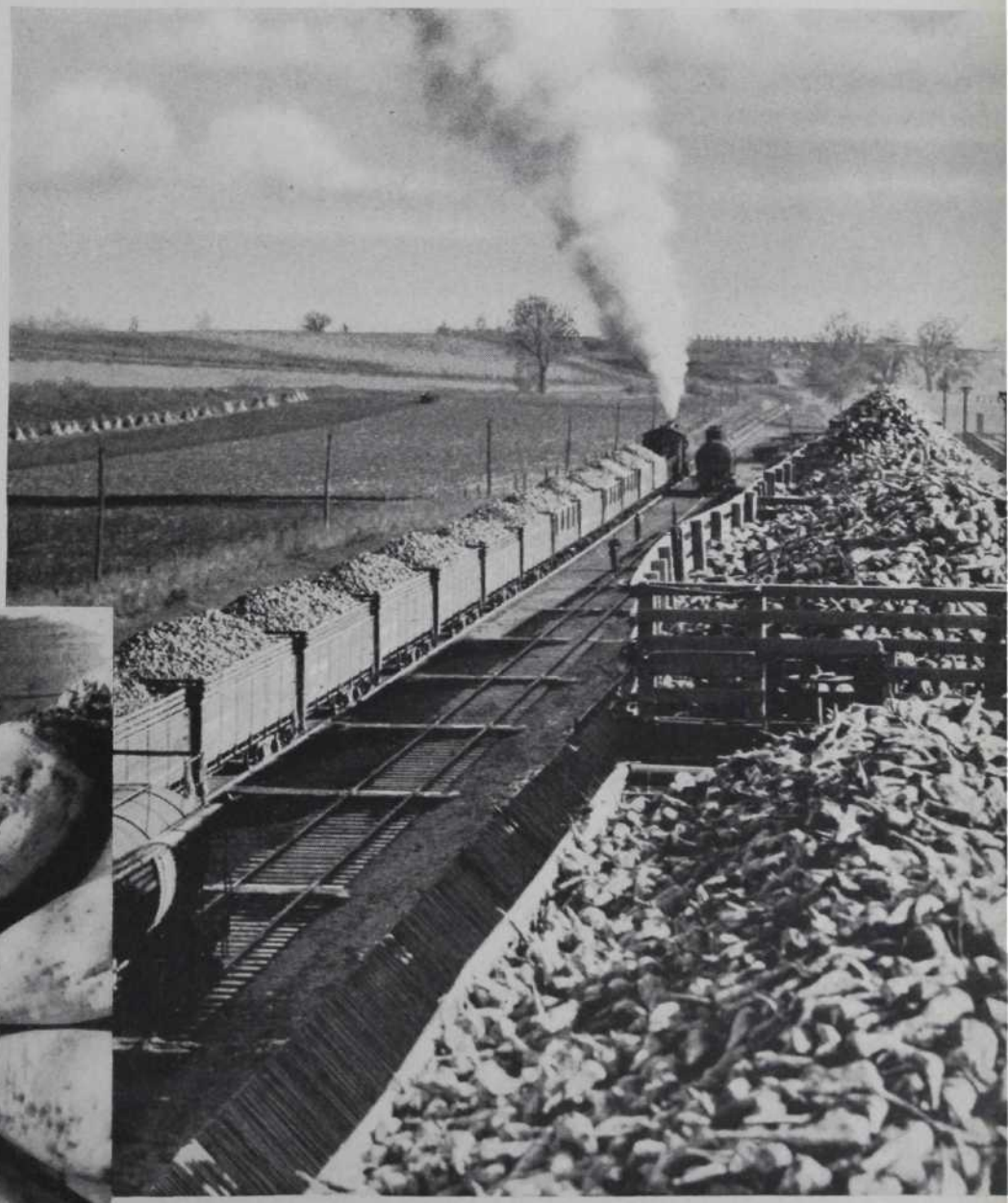
THE AMERICAN people know that, if we are to win the war, they must make sacrifices. They are making them—willingly: automobile dealers are finding new fields; businesses denied materials are closing their doors; working men are undertaking new and difficult tasks, working harder; taxes climb higher and higher. Such things are accepted without complaint so long as people believe they are necessary. But, let them believe that any given sacrifice, however small, is unnecessary and they will protest bitterly. We are that kind of a people.

Since the war started, Americans have been asked to save any number of things. Other things have been rationed. Having saved them and accepted the rationing, they have been told that these steps were unnecessary. Sometimes, while a few cried "shortage" others have cried "plenty." People begin to wonder if they are not being asked to sacrifice merely to satisfy somebody's whim or desire for power.

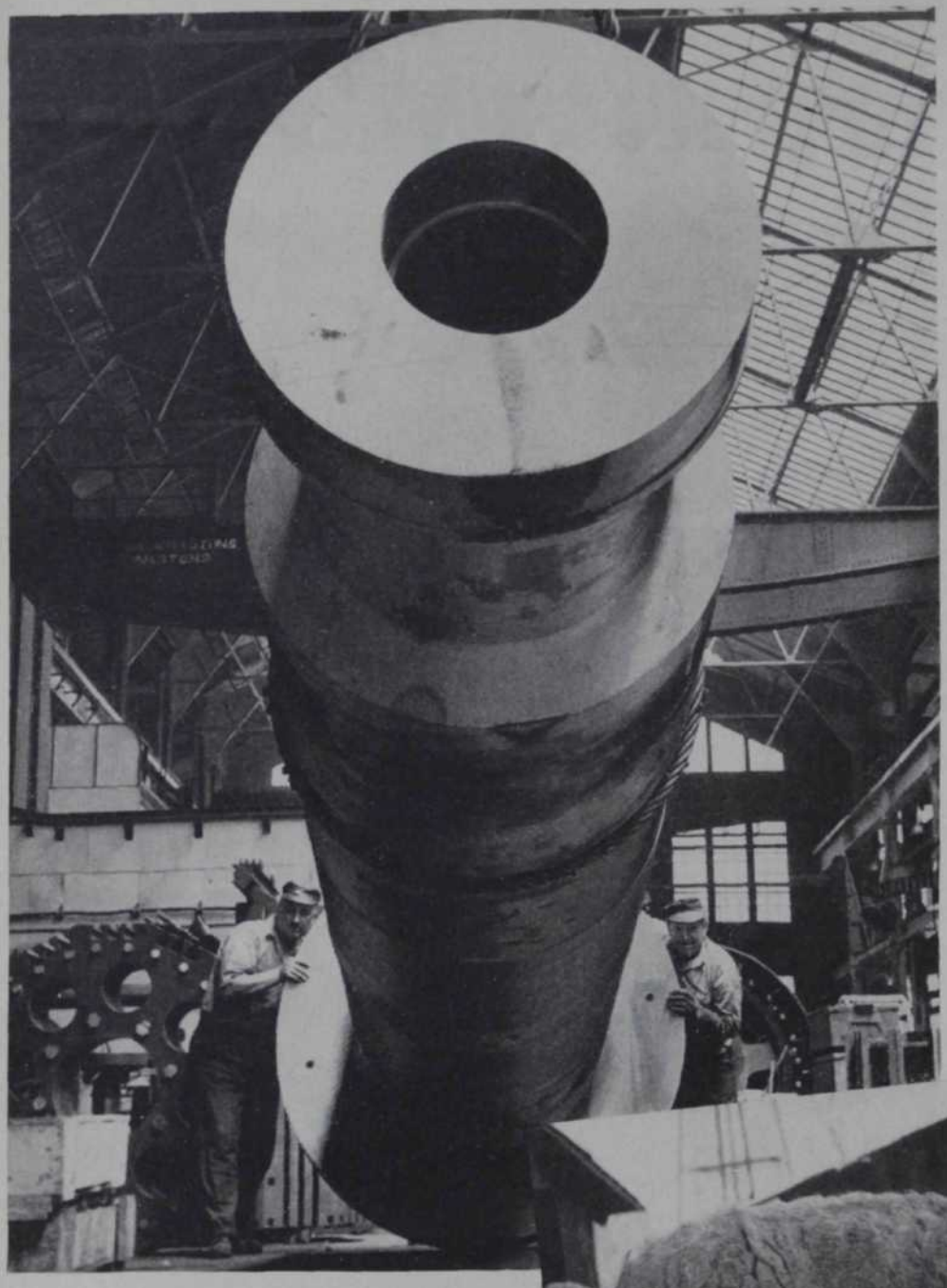
This is dangerous. Irritation and



ARTHUR GERLACH



German submarines make these sugar beets assume increasingly greater importance. Curtailed Caribbean cane sugar shipments threaten nation's supply, but beet sugar growers are planning to provide more than one-third of our expected total consumption



This shaft for a ship engine is made in a plant that also makes electric generators

confusion in small things destroy unity in big. Those who doubt the wisdom of a salvage order begin to doubt the wisdom of all war-time orders. To remove such doubts, only a simple explanation is necessary: "Why was the order given? Why was it countermanded?"

Lack of such explanations inspires questions: "Are sugar warehouses bulging?" "Is there a paper shortage?" "Should we lay in a supply of candles for lighting?"

In an effort, not to answer those questions, but to show the reasons for them, NATION'S BUSINESS has gathered the facts about many important materials. Although the picture is constantly changing—even as we write—here is the situation as regards those materials.

More Than Enough Paper

THERE is no paper shortage. Some mills are actually begging for orders. A survey of the British situation inspired the fear of scarcity. Washington reported that we would need more paper than present mill capacity could produce. Everybody was scared and the orders started rolling in. One lady bought $75 worth of toilet paper. A printer accustomed to buying one or two tons at a time bought 20. Warehouses, freight trains, trucks and shelves were loaded down with advance orders of "smart" buyers.

Washington officialdom joined the "panickeers." Someone said the Government would take 30 per cent of total production; others that Uncle Sam would take 160,000,000 tissue rolls at one time. Actual fact was, Government is only taking six per cent and the 160,000,000 order turned out to be 15,000,000. At one time an embargo was placed on freight cars loaded with paper coming into Washington. The sidings were crammed with loaded cars because the warehouses were full.

Paper executives are eager to clear up the misunderstanding which still exists in some quarters.

What the surveyors failed to contemplate was the tremendous curtailment of ordinary civilian consumption. Automobile makers have stopped sending promotion material; liquor distillers send out fewer recipe books; many products packed in cartons have been curtailed; when alcohol for toilet goods was curtailed 70 per cent, packaging decreased; folks used both sides of the paper for letters; merchants used old boxes for deliveries; printers curtailed operations because customers cut down or ceased their usual mail promo-

A lamb brings $13.50. Fleece from a ewe, $3.60





New Production Requires New Paper Work Routines

Throughout America, shops and factories are engaged in new kinds of production. In the white heat of urgency they have had to forge new methods to insure greatest output in *limited time.* The application of methods engineering to new *time* and *cost* problems emphasizes the coequal importance of *paper work routines* that help to control production procedures.

Simplification of paper work, plus accuracy and speed, are fundamental in Addressograph-Multigraph methods. *Simplification* to reduce the burden of detail and promote the smooth flow of instructions, information and records. *Accuracy* to avoid waste of time, money and materials and provide reliable costing. *Speed* to get more work done and increase productive capacity.

USERS OF OUR PRODUCTS are entitled to the services of our Methods Department. It can help to extend the use of their equipment in Purchasing, Storeskeeping, Production, Marketing, Shipping, Billing, Collecting, Disbursing and all key operations of business. To those who are interested in up-to-date information on better methods it is available on request, without charge.

ADDRESSOGRAPH-MULTIGRAPH CORPORATION • *Cleveland, Ohio*

Addressograph and Multigraph are trade-marks registered in the United States Patent Office

Addressograph-Multigraph Methods **SAVE BRAIN HOURS AND HAND HOURS**

tion efforts. The paper business is in a slump—inflation hit the industry and now the backwash has rolled over. Executives hope it will serve as an object lesson to prevent similar occurrence in other fields.

Even kraft paper and paperboard are now ahead of demand and are being touted as substitutes for other materials. Paperboard which is 85 per cent waste material, is so plentiful that the Government is asking curtailment of waste paper campaigns. Heavy paper bags interleaved with water-proofed asphalt-laminated sheets are substituting for burlap on heavy duty jobs and for lend-lease products sent overseas. An oversupply of newsprint is reported.

In World War I, newsprint was among the scarcest of items. Capacity was low. As prices skyrocketed so many mills were built that supply exceeded demand. Result: newsprint has been in the doldrums most of the time since the early 20's. Today some mills are operating only three days a week.

Few paper mills are entirely converted to war industry. Wood pulp and by-products are used extensively in war-goods manufacture, but their production does not entail use of paper-making machinery. In other words, a paper mill can make both war and civilian goods at the same time. Most valuable part of plant for war production is machine shop. They are being utilized.

Alcohol for Powder and Rubber

THERE will be 590,000,000 gallons of alcohol in 1943 according to W.P.B. Practically all of it will be from grain. Molasses, except a little from Louisiana and Florida, is out of the picture. Petroleum gas will yield only 65,000,000 gallons.

Military and civilian demand will be about 476,000,000 gallons. Butadiene will take 200,000,000 gallons and of the remainder half will go for powder, the rest largely for varnishes, lacquers and antifreeze. Reserve will be more than 100,000,000 gallons, including the 1942 carry-over of 50,000,000 gallons.

This program will consume 136,000,000 bushels of corn, rye and wheat. The wheat and corn surplus this year will be about 500,000,000 bushels of each. Experts say that about 300,000,000 bushels would make 800,000 tons of rubber. That is nearly equivalent to the annual average yearly production of Illinois, second greatest corn state.

Hottest argument in Washington today is whether rubber should be made from grain alcohol or petroleum.

Proponents of the alcohol method say:

1. Rubber is sorely needed. Every possible manufacturing method should be used despite cost. If rubber isn't provided, the farmer won't be able to grow or market his grain and livestock. Use of grain for alcohol to make rubber would provide outlet for surpluses.

2. Past experience in making grain alcohol proves nothing so far as cost is concerned. Mass production, and by-products for cattle feeding would reduce cost. New methods now on an experimental basis might cut cost to as little as eight cents for a pound of butadiene made from wheat.

3. It is an extra load on transportation system to haul grain to East Coast distilleries to make alcohol.

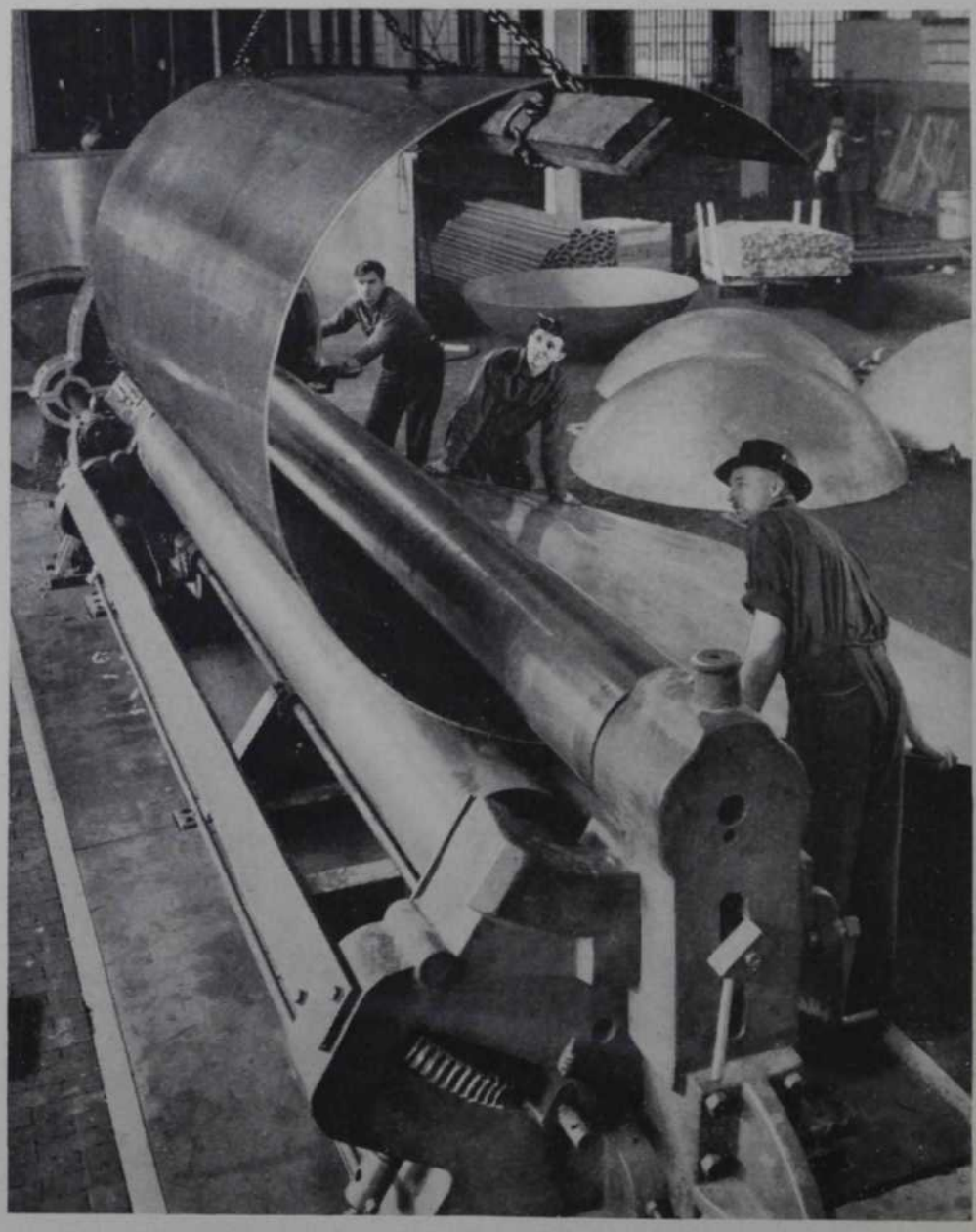
4. New alcohol plants need not take so much critical material. They can use wood and tile for columns—use vats and other accoutrements from textile plants and other idle factories. Take equipment from inactive breweries for use in new alcohol plants.

5. New alcohol plants would be a great boon to agriculture in peace time. Not only grain, but low-grade potatoes, apples and other fruits might be converted, although it is admitted that spoilage of fruits and vegetables in storage would prevent use of plant the year around. But new crops and new products might be developed. Experiments are now under way with waxy maize and sorghum that could produce a starch to compete with imported cassava starch for industrial uses. Alcohol plant promoters say this starch could be made in their plants.

Proponents of petroleum method say:

1. Butadiene (raw product from which rubber is made) can be made from petroleum at cost of ten cents a pound. Alcohol people admit that with corn at 98 cents (parity), butadiene would cost nearly 40 cents. With 75 cent corn, butadiene would cost 35 cents. If corn were down to ten cents, it would still cost 23.6 cents to make a pound of butadiene.

2. When whisky distilleries making 120-140 proof whisky are stepped up to 190 proof and molasses distilleries fully converted to grain, there will be sufficient capacity for next year's need. They can be converted with second-hand materials



In war time, aluminum becomes a precious metal, no matter how much we have and despite its decrease in price

SOLDIERS' SHOES!



Just what distant lands these heavy army brogans are bound for is a military secret.

But one thing is certain. When they step off the train at camp or embarkation point, the men who wear them will be rested and ready for action. On long, cross-country trips, troops are *going Pullman!*

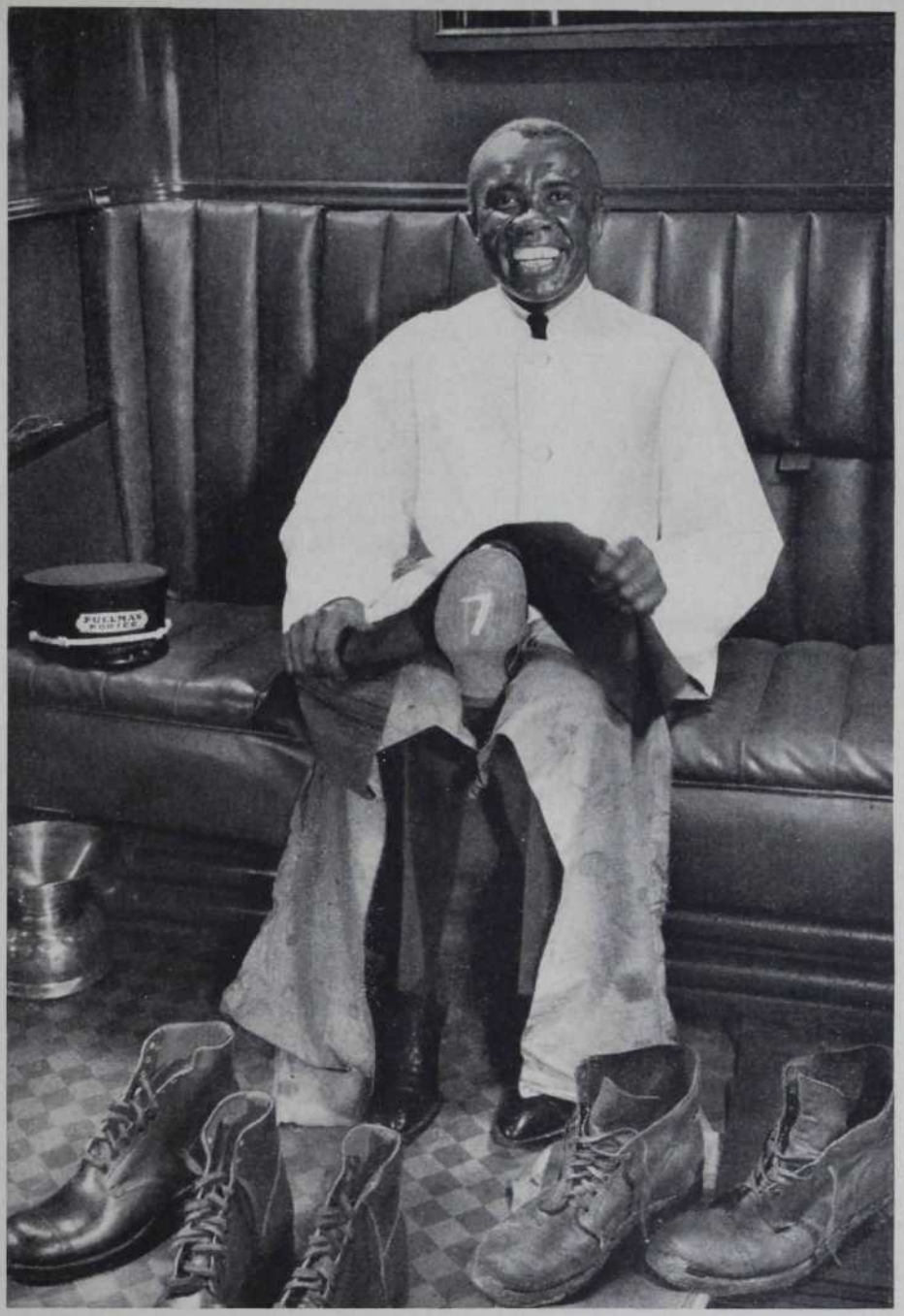
During the first six months of 1942, more than 3,000,000 soldiers, sailors and marines traveled in Pullman sleeping cars —565,200 of them in June alone. That keeps a lot of Pullman cars in constant military service, with lots more standing by for orders day and night.

So far, Pullman has been able to handle its military duties without seriously disrupting civilian passenger service, even with troop travel at an all-time high and civilian traffic running 30 per cent ahead of 1941.

But a word of caution is in order. The extent to which Pullman can *continue* to serve civilians depends considerably on *your cooperation*. For example, you can help tremendously if you will follow these four simple *wartime travel rules:*

1. ***Make your Pullman reservations early.***
2. ***Cancel space promptly if plans change.***
3. ***Ask your ticket salesman on what days travel is lightest and try to go on those days.***
4. ***Take as little luggage as possible.***

We believe you will agree that these are sensible, necessary suggestions and are easy for most travelers to observe. When you do so, you help make *capacity use* of all the Pullman sleeping cars that remain available for civilian service after troop train requirements are supplied. And that means, you help *all* war-time travelers—yourself among them—get the "*sleep* going" they must have in order to "*keep* going" at the pace they must maintain.



Copyright 1942, The Pullman Co.



← "It's sleep that counts!" says this experienced Pullman passenger. "These days, I don't always get the exact *type* of Pullman space I ask for. But I *do* get privacy and the sleep-inviting comfort of a full-sized Pullman bed, whether I travel in an upper, a lower, a section or a room."

SLEEP GOING—
TO KEEP GOING—

Go PULLMAN

KEEP YOUR PLEDGE TO BUY WAR BONDS AND STAMPS

—almost no necessity for critical materials. If more capacity were needed, wineries, a few sugar refineries and some 150 inactive breweries could be converted.

3. Locating new alcohol plants in the Grain Belt would mean extra transportation in hauling alcohol to butadiene plants. Butadiene from petroleum is processed at the plant where gasoline is cracked. Also most industrial alcohol refining plants, now converted to grain alcohol, are already in areas closest to end product.

4. It would take 1,300 tons of steel, 70 tons of copper, four tons of bronze and other materials to build a plant that would turn out 2,500,000 gallons of alcohol, or the equivalent of 2,750 tons of rubber. Then it would take another plant to make the butadiene. When butadiene is made from petroleum, only an addition is needed.

5. New grain alcohol plants would become white elephants after war. Experience indicates they cannot even compete with molasses alcohol for industrial purposes on a cost basis to say nothing of the new process by which alcohol is converted from petroleum at a lower cost than by any other method. Only lack of critical materials to build new facilities prevents expansion of this method now.

6. A crop failure or diversion would upset a synthetic rubber program based on grain alcohol. Such diversion might easily occur whenever livestock prices went up and farmers found feeding corn and wheat more profitable than selling. Furthermore, if grain alcohol cannot compete with petroleum as a source for butadiene on a cost basis, the first postwar step of alcohol plant promoters would be to ask for a subsidy and rubber tires would probably cost more than any time in the past 20 years.

Whichever plan is used or if both are adopted in part, the people want more rubber and quickly. Government officials are now talking about raising their goal from 800,000 to 1,000,000 or 1,300,000 tons. Significant note, however, is Secretary Wickard's warning that synthetic rubber program might interfere with Good Neighbor policy after the war. Said Wickard: "The United States Government retained control of the synthetic plants with the feeling that they should not be operated behind a tariff wall that would mean high-priced rubber for American consumers and at the same time interfere with our own good neighbors to the south."

Plenty of Sugar But Not in the Right Places

UNITED STATES ordinarily consumes 6,800,000 tons of sugar a year. Last year's figure was almost 8,000,000 tons. Reasons were hoarding, speculation and thrift.

This year, O.P.A. says we can have 6,000,000 tons including lease-lend, armed forces and a 300,000 ton reserve.

At best, only 40 per cent—2,000,000 tons of beet, 500,000 tons of cane—can be produced in continental United States.

Beet sugar will probably be the largest single source of supply for the first time. Only last year the Government forced curtailment of crop acreage by 15 per cent. Even then it was the largest on record. This year it is expected to be 25 per cent more. Handicapped by labor costs of 40 to 65 cents an hour against $1.40 a day Cuban labor, and a quota system that gave island sugar preference, sugar beet growers are lucky to have remained in business. The country is fortunate. A newly developed harvesting machine cuts costs but lack of critical materials may prevent manufacture. Brightest achievement has been a seed-shearing machine. Ordinarily seeds have several segments, several sprouts. Machine clips off segments, leaves only one sprout per seed, reduces costly thinning in fields.

There is plenty of sugar in the Caribbeans. Cuba alone had a crop of 4,000,000 tons. Uncle Sam bought it all at $2.65 a hundred—65 cents more than Cuban sugar has brought for eight or nine years—but the Government does not expect to bring in more than a third of this crop. Part of the business must be given to Puerto Rico and the Virgin Islands. Some Cuban sugar has gone to Russia. It was originally planned to send 1,000,000 pounds, but only one-fifth of that amount is supposed to have been shipped. British get sugar from their own dominions.

Sugar shortage is a transportation problem. Ordinarily about three-fourths of all sugar comes by water. The 1,000,000 tons from the Philippines is gone. There will probably be about 800,000 instead of the usual 1,000,000 from Hawaii, but most of it is being unloaded in California. A large portion customarily moved through the Panama Canal to East Coast refineries. Now it must be refined in the West adding to transportation load. Beet sugar, too, is a western product that seldom moved east of Mississippi River in normal times. Result has been a concentration of supply and overcrowded warehouses.

Gulf Coast refineries have been accepting Caribbean raw sugar that ordinarily went by boat to more numerous Atlantic Coast refineries. Crowded facilities were inevitable, but the jam has broken. In June the Southern refineries were overloaded. August 1 they had only 60,000 tons compared to normal stock of 200,000.

Sugar warehouses were forced to bear extra load, because kitchen shelves were practically bare. Rationing reduced surplus of confectionery and soft drink manufacturers, large scale distributors, and speculative buyers, who customarily have thousands of tons in reserve. If some way could be found to get sugar back into these channels, refinery warehouses would soon lose their bulge.

Gossip and rumor added to the confusion. A man from the West Coast asked why sugar beets were permitted to rot in the fields near Salem, Ore. because the refinery couldn't take them. The truth is that there is no refinery within several hundred miles of Salem.

Submarine warfare may determine whether or not there is a serious shortage. It has been estimated that 2,000 seamen have died in western Atlantic sinkings. No serious minded person is going to cry about sugarless coffee in the face of that sacrifice. But, even when the submarine menace is dissipated, there may not be enough shipping space for sugar. It may take all available tonnage to supply expeditionary armies. In addition we must sacrifice Caribbean bauxite, chromite, manganese and copper if the bottoms are used for sugar.

Aluminum Changes from Pounds to Tons

IN THIS WAR, aluminum has become a precious metal—"no matter how much we have, we could still use more." Two years ago average airplane used 6,000 pounds. Average is now 12,000. In 1941 production was 308,000 tons; it will soon pass 1,000,000. At least one plant could tuck 41 football fields under its roof.

The country is spotted with a score or more of new plants. Despite Axis capacity due to the great amounts of ore available in Europe and the Far East, it is believed that U. S. capacity will soon be far beyond Axis ability to produce.

Until the emergency most bauxite refined here came from Dutch Guiana. It is still coming in, but the shipping problem is not licked. Domestic deposits in the South, are not particularly large and the ore is low grade. However the Rocky Mountains are pocketed with numerous deposits of an ore called alunite that West Coast plants are successfully converting into finished aluminum. Cryolite from Greenland, necessary for combination with aluminum, is no problem since Alcoa developed a synthetic.

If the Government is to build hundreds of 70 ton flying boats, or even step up its ordinary cargo plane plan, aluminum demand will go higher than ever, but if past performance is any criterion, the aluminum companies should be able to provide the metal if they can get electric power and critical materials for building new plants.

(Continued on page 86)

LABOR and MANAGEMENT —a Common Objective

ERIC A. JOHNSTON, president of the National Chamber, likes to emphasize agreements rather than differences. He doesn't deny that there are points of difference between industry and labor but he thinks the things on which the two groups agree are so important that they overshadow completely the area of controversy. Mr. Johnston's recent conferences with prominent labor leaders have been so productive of cooperation that the *American Federationist*, organ of the A.F. of L., invited him to contribute to its pages—a gesture which happens only once in a blue moon. The following extracts are from his good will message to the 200,000 key men who read the *Federationist*, and, through reprints in scores of labor journals, to a large share of the 5,400,000 paying members of A.F. of L. unions.

IN THE business of stamping out Hitlerism neither the American industrialist nor the American workman has had to be driven to his task under the lash of compulsion. No Gestapo has been needed to ferret out the laggards and hold over them the threat of the concentration camp.

★ ★ ★

We won't make much headway by dwelling on the shortcomings of labor or the delinquencies of management, by centering attention on what the one or the other has failed to do and shutting our eyes to what they have done. Labor and management are working with each other rather than against each other; they agree much more than they disagree.

Both are firm in the belief that the American system of free enterprise is incomparably better and will yield far more benefits than any "managed" or "treadmill" economy that has been devised. Both are cognizant of their responsibility for making that American system work to the limit of its efficiency. With that as a starting point, it should not be impossible to reconcile differences in some less costly way than by "fighting it out" until one or the other yields. Competent labor leaders are quite aware that their followers have nothing to gain by starving capital and responsible industrial executives are quite as aware that they have nothing to gain by starving labor.

There is no reason to believe that differences cannot be adjusted amicably. In thousands of plants now turning out munitions of war, labor and management are teaming up to win the game of production. If neither is batting 1,000, the average of both is impressively high, and there is basis for the hope that it will go higher.

★ ★ ★

Both management and labor leaders must face the facts of the situation with which they are dealing dispassionately and in clear perspective. Both must be willing to give as well as take, and both must realize fully that, in the end, they will stand or fall together. If capital is regimented, labor will be regimented. A country's industry, no more than the country itself, can long exist half regimented and half free.

An industry that pays no dividends will, sooner or later, pay no wages. By the same token, an industry that can exist only by shaving the wages of its employees is headed for the scrap heap. It is self-evident that, if the game is lost, neither labor nor management is going to win, and it is equally evident that it will not be won if either is intent upon promoting its own interests alone and is heedless of the public both are supposed to serve.

★ ★ ★

Industrial leaders and labor leaders with whom I have come in direct contact think pretty much alike on economic fundamentals and are aiming in the same direction. They know that unity of purpose cannot be achieved by exchanging epithets and challenging each other's motives. They know that compulsion settles nothing permanently. They know that force invites force.

If industrial leadership assumes important responsibilities in relation to its thousands of employees, labor leadership owes no less important responsibilities in relation to the thousands of investors who provide the capital with which industry operates, for leadership works both ways. It cannot profit by the advantages that organization brings and disregard the obligations that organization imposes. It is poor generalship that cannot stop its followers as well as urge them on.

We have had and are now having an example of the extraordinary things labor management and industrial management can do under the press of a world-wide crisis which involves all our destinies. It is not only patriotism, it is also common sense. Both will be needed no less when the world undertakes to clear up the wreckage and devastation left in the wake of war and build up a better order of living—better for the worker as well as the investor and for the untold millions who are buoyed up by the hope of a just and lasting peace.

Just what this task will be we cannot clearly foresee, but we do know that when the clouds have lifted, the sun will not shine on a serene and placid world. It will shine, rather, on a world laid low by the storm of conflict and littered with the debris of destruction. Employment must be provided for returning millions of fighting men. The activities of more millions must be diverted from war production to peace production. War debts must be paid. Channels of trade must be reopened.

The burden of reconstruction will rest most heavily on industry and labor as well as management must carry its share of the load. It will constitute another test of the ability of private enterprise to function successfully in peace as it is functioning in war. As it has built up the country in which we live, so will private enterprise rebuild it—strong and reliant for ourselves and those who will come after us.

HOW STRONG IS A TANK?



ONE tank is powerful—but real combat effectiveness depends on coordination with other weapons, with other service arms, with repair crews.

So in the production of these and the other weapons on which we depend for our freedom. Industrial Teamwork within each war industry and with others is responsible for the output records the nation's plants are making each week. An integral and vital part of this teamwork is Insurance, the industry that protects other industries—reducing accidents, cutting financial worry, assuring continued speedy production all along the line.

☆ THE HOME ☆
Insurance Company
NEW YORK

FIRE ★ AUTOMOBILE ★ MARINE INSURANCE



INSURANCE
aids Industrial Teamwork

The laboratory of insurance works on scientific principles. From generations of underwriting experience comes the modern insurance policy with all its aspects of protection and service. Cooperation with industry lessens exposure to loss. More—insurance stores a large reserve against losses that occur unavoidably.

MANAGEMENT'S *Washington* LETTER

A last minute roundup by a staff of Washington observers of government and business

GET READY for sweeping extensions of federal controls after the November elections.

Groundwork is being laid now for both legislation and directives.

Here are some moves to look for:

(1) Restrictions upon movement of labor from job to job, community to community.

(2) A wave of hard-boiled price control enforcement. This has already started.

(3) Zoning of civilian goods distribution. This is back again after having previously been ruled out. See Management Letter for August.

(4) Closing of more factories now engaged in civilian production.

(5) Further limitation of items manufactured for civilian consumption.

(6) Much tighter control of raw materials.

(7) Registration of all the rest of the population.

(8) Issuance of single ration books covering all items now rationed or to be rationed in future.

(9) Extension of the Selective Service System to cover the Navy, which up to now has taken only volunteers.

(10) Legislation empowering government to draft the services of anyone with special skills or qualifications needed in the war effort.

▶We are moving closer to a modified form of Fascist economy such as Herbert Hoover recently said we would have to adopt to win the war, whether we like it or not:

Military command is impatient because this isn't coming faster.

Congress is resigned to it, will delegate whatever authority is needed.

Labor sees it coming, dreads it, and is rushing to get all the representation it can in the top councils.

Business is already so thoroughly regimented that it probably will adjust itself quickly to additional controls.

Public seems willing to accept anything that will speed the war. It is better prepared to do what it is told than Government is to tell it what to do.

▶Business faces, (1) shortage of raw materials, (2) shortage of labor, and (3) disruption of distribution and selling.

The long predicted pinch in raw materials is here. Available supplies will go first to war industries except in the most essential non-war plants.

Prospect is that non-essential factories will be closed first in cities where war industries predominate, so labor can be shifted to war production.

Civilian production will be further concentrated in factories selected on a geographical basis.

Salesmen in the East have already been refused extra gas rations, thus forcing them to restrict their coverage, double up territories, take on more lines. This will hit business hard when gas rationing is extended to the entire nation, as it will be sooner or later.

▶New manpower legislation will set up a Selective Service System for service in fields outside the Army and Navy.

Government can then requisition the services of anyone with special skills or training essential to prosecution of the

war. It will be able to draft skilled workmen for factories, replenish crews of the Merchant Marine.

U. S. Employment Service already is making up lists of men to be requisitioned.

Test registration of women for war work already has been made in Detroit and Seattle. Detroit estimates that, by November, it will be able to use 80,000 women workers, Seattle 100,000.

▶Demand for Donald Nelson's scalp as head of War Production Board comes chiefly from those who believe Army should take over full control of the industrial war machine.

Not all who so believe are military men. Some are civilians, including a number of widely-read news commentators.

Thing to remember is that when the going gets rough, as it is now for the Allies, there's always a search for a goat. Nelson and his business-man group in W.P.B. happened to be handy, and in midst of a thorough overhaul of W.P.B.'s basic functions.

General Somervell has long been chief candidate of anti-Nelson forces for the job of running domestic production. He's been tapping an impatient foot on the sidelines for a long while.

President Roosevelt is known to be determined to keep a tight reign on mushroom growth of military power over civilians. He has always been opposed, too, to swift changes in top personnel.

Fact remains that W.P.B.'s new allocation system MUST be made to work, whether by Nelson or someone else. All production depends upon success of the new system.

Big W.P.B. drive now is to find out the exact sources and quantities of available raw materials essential to war production. Second step is to feed them into industry to achieve balanced production.

Main trouble is not with the machinery of production; it isn't with management or labor. It's Government's faulty control of scarce raw materials, it's inability to supply them in an even flow to the industries using them.

Nelson is enlisting the aid of business organizations such as chambers of commerce and trade associations, to help set up the allocation system in the field.

▶President Roosevelt refers often to his role as Commander-in-Chief of the Army and Navy, and is concentrating on military strategy and problems.

Admiral Leahy, described as the President's military "legman," advises the President, communicates his orders to military leaders. There is no sign yet that Leahy's function is more than liaison.

Harry Hopkins is still a White House favorite but his scope has been narrowed. He has less to do with strictly military affairs, more with civilian government.

Elmer Davis is making a hit with his administration of Office of War Administration; has the President's ear. His crack-down on Leon Henderson-Secretary Ickes dispute over merits of national gas rationing shows range of his authority, at least over civilian officials.

Secretary Ickes has little war authority left. He's practically out of the rubber and gas rationing picture, has retired temporarily to running the Interior Department.

DROLLERY DEPT.: Republican national headquarters had to get out of its offices on Jackson Place, just across from White House. C.I.O. wanted the G.O.P. offices for its own headquarters. It got them.

▶Leon Henderson is leaning heavily on retail organizations to help enforce O.P.A. price ceilings and regulations. He has abandoned hope, at least temporarily, for the army of investigators and administrators he asked Congress for.

Henderson's big enforcement push has started in New York. Prospect is that O.P.A. will work one region at a time, mopping up as thoroughly as possible before going on to new regions.

It's significant that price ceiling bulletins in stores get scant attention from housewives. Indicates faith in integrity of retailers, lack of resentment against price structure.

Punctures continue to appear in price ceilings for manufactured goods. This is

because cost of labor and raw materials is rising faster than sale price of manufactured items.

O.P.A. is still driving for wage control, but with little success. Henderson wants power to veto wage increases he thinks are out of line with prices. Labor and War Labor Board oppose him strenuously on this. He isn't likely to get veto power.

▶Bird's-eye View of Business:

Retail sales are still falling off. Store inventories continue high in some lines but are melting fast in others.

Half the total factory output of the United States now goes into materials of war. In durable goods the figure is 70 per cent. Industries recording production drops include printing and publishing, shoes, and petroleum, leather, metal and lumber products.

Biggest production increase is in airplane, shipping and machinery.

Pay rolls are up 34 per cent over last year. Average weekly earnings of factory workers is $37.40; for durable goods industries the average figure is $43.33.

Cost of living is up about 11 per cent over last year, but is slightly lower than early this year. It is 17 per cent higher than in 1939.

Stockholders are a sad bunch. They get company statements saying earnings before taxes are higher than anyone dreamed of—but June dividends average 16 per cent less than January's.

▶FOOD FOR THOUGHT: Since 1939 there has been a 60 per cent increase in the so-called "money units" held by the public. In the same period value of stocks on New York Stock Exchange dropped almost 20 per cent.

Savings are up 115 per cent over last year. Money "in circulation" is at new peak—$12,500,000,000. It's not all moving around—some is under mattresses and in teapots.

Despite this huge volume of "money units" outstanding, only 15 per cent of all the war bonds sold by Treasury from Pearl Harbor through end of April was in small denominations—$25 and $50 bonds. Obviously there's some selling to be done on the little fellow. Until he buys bonds he is a Henderson headache.

▶The House won't recognize its tax bill when the Senate gets through with it.

Senator George and his Senate Finance Committee are determined to bring the bill's yield up at least to Treasury goal of $8,700,000,000—possibly more.

House bill's yield was estimated at only $6,271,000,000. Point to remember is that all House members are up for election this year; only one-third of the Senate membership is up.

It's too early to predict provisions of final bill, but it's significant that all major business and labor organizations propose bill be revised to produce more, not less, revenue.

A.F. of L.'s reluctant agreement that sales tax in modified form might be necessary, came as surprise. So did A.F. of L.'s condemnation of Treasury and C.I.O. proposal that ceiling on net incomes (after taxes) be placed at $25,000.

Business and labor are in agreement on broad principle that industry must be left enough working capital to permit it to continue operating, and enough profits to attract private capital.

Observers at George Committee hearings said tax proposals suggested by Chamber of Commerce of United States evoked greater interest among committee members than any such presentation made in years. (See analysis of Chamber program on page 96 of this issue.)



▶There'll be no miracle or fireworks from the Baruch-Conant-Compton rubber committee.

Chairman Baruch has a free hand to take all the time the committee needs, obtain information from any source, and make whatever recommendations it chooses.

It's doubtful whether the committee will report before elections.

Extension of gas rationing to the rest of the nation may be determined by the Baruch group's report.

▶Government wants American business to advertise in South America, Central America, Canada.

It offers to send representatives to you to explain how such advertising may be charged against income taxes. If interested, write Nelson Rockefeller, Coordinator of Inter-American Affairs, Washington, D. C.

Idea is to use advertising to maintain markets in the other Americas, to explain shortages, keep trade and brand names before our neighboring buyers, promote good will.

Support for the campaign is pledged by Treasury, State and Commerce Departments.

▶Railroads figure they can get through this fall with present equipment but they have their fingers crossed about next year.

They have been told they will get no new passenger cars; only freight cars are to be built.

Locomotives are the heart of the problem, but, although new locomotives have been authorized, the builders have not yet been allocated the required materials.

Prospect is that the 5,000 additional tank cars ordered to carry fuel oil to the East will be rounded up, though other industries, notably chemical, will feel the pinch. Tank cars are owned chiefly by oil companies and by tank car firms.

Passenger travel priorities are still far off for most of the country, but may be applied in some areas. Passenger congestion is worse in and out of Washington, D. C., than anywhere in country. Roughly, passenger facilities are adequate in Middle West and interior Northwest, crowded in East, South and Southern Pacific Coast.

It's hard for official Washington to keep a perspective on passenger transportation because the squeeze is greatest here. But land transportation continues to be one of the brightest spots in the whole war picture.

▶C.I.O. has published a pamphlet describing how it believes war production can be increased 25 per cent "without additional manpower or equipment" by applying "correct methods."

The pamphlet deals in detail with four main subjects: (1) increasing the productivity of labor, (2) increasing productivity of equipment, (3) effective use of materials, and (4) effective controls.

If you'd like one or more copies, Nation's Business can get them for you at 15 cents each.

▶BY THE WAY: Mrs. Roosevelt has been less active in official affairs recently; has curtailed her traveling and has been kept busy entertaining a parade of visiting royalty....Coastal cities were first to apply for new war risk insurance for municipal property. Coverage protects bridges, buildings, reservoirs, police and fire systems, automotive equipment and other property against bombing and other damage by enemy. Baltimore has taken $74,000,000, Seattle and Los Angeles $30,000,000, Hartford $21,000,000. Detroit is one of the few inland cities to apply for insurance to date. New York plans to insure itself....Gas rationing in the East has knocked down parking meter revenues 12 per cent so far....Philadelphia put on a "Save the Water" campaign and found an additional 65,000,000 gallons of water daily for war industry....Transportation Coordinator Eastman may have to requisition street cars, busses from some communities and give them to others as war production hits its stride and workers' tires blow out....Candy manufacturers are getting the sugar they need but cocoa is scarce. Chemists have found no satisfactory substitute for cocoa though they're trying and making progress.

AN EXCITING PREVIEW OF THINGS TO COME FROM

GLASS



OUR research laboratories and design department are humming these days, exploring with priority-pinched industries new and practical uses of glass. It's an exciting preview to many promising postwar products.

Take our experiments with kitchen stoves, for example. Here, as with so many products, the study of glass as a replacement material has opened the way to revolutionary new design and performance features.

This new experimental stove features a full-vision oven door and top made of heat-strengthened Tuf-flex plate glass . . . the glass with the iron constitution. The inside of the oven is lined with colored opaque structural flat glass. The glass at the back of the oven and on the instrument panel is of a translucent type with indirect lighting, providing shadowless illumination. Housewives and stove manufacturers will instantly appreciate the utility features of this completely lighted, full-vision oven.

The new glass stove features suggested here can be accomplished with standard L·O·F glasses, the result of years of exhaustive research by our company. From our complete line of glass products we are able to fit glass into scores of special applications. There are L·O·F glasses with thermal, acoustical, structural, lighting, decorative and many other chemical and physical properties that fit this remarkable material for endless uses.

If you have a material or design problem, we will welcome the opportunity to explore with you the possibilities of continuing your product with glass. Libbey·Owens·Ford Glass Company, 1394 Nicholas Building, Toledo, Ohio.

LIBBEY·OWENS·FORD
QUALITY *Flat Glass* PRODUCTS

Tires that Fly
DO THEIR FIGHTING "DOWNSTAIRS"



Even aviation experts have difficulty these days in keeping up with the rapidly changing designs and improvements in our bombers, fighters and trainers.

But tires for our war planes *have to keep up.* Because tires *must* have the stamina to stand up under the tremendously increased strain of modern-day take-offs and landings.

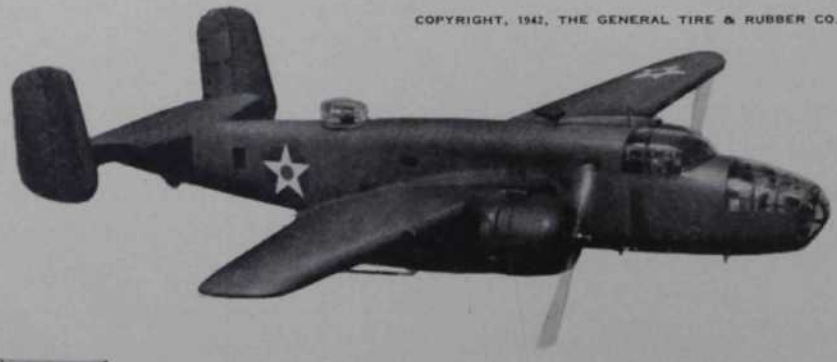
General served the aviation tire needs of our armed forces long before the war. General originated, developed and patented the streamline smooth contour principle, out of which the modern airplane tire has come.

Today, General's long practical experience in aviation tire manufacture has "earned their wings" for General Tires in America's battle for air supremacy.

Our battle for Victory *at home* must be one of *conserving the tires* now in use on our civilian cars and trucks . . . to keep our War Production going at capacity . . . to haul men and materials to factories . . . and to let our armed forces have first call on all the rubber available. Don't let speed, neglect or unrepaired damage *waste a single mile* of America's precious rubber.

THE GENERAL TIRE & RUBBER CO. • Akron, Ohio

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Tokyo Knows Generals. In a telegram to General Tire workers, Brigadier General Doolittle said, "We bombed Tokyo in the North American bombers you helped build . . . They will never stop us if you keep up your great work." *(Shown at left)*

VICTORY WILL COME WITH THE RUBBER YOU SAVE



IT TAKES A TOUGH TIRE to carry the weight of Uncle Sam's bombers. General airplane tires have proved equal to the job of seeing that America's latest dreadnoughts of the air take off and land *safely.*

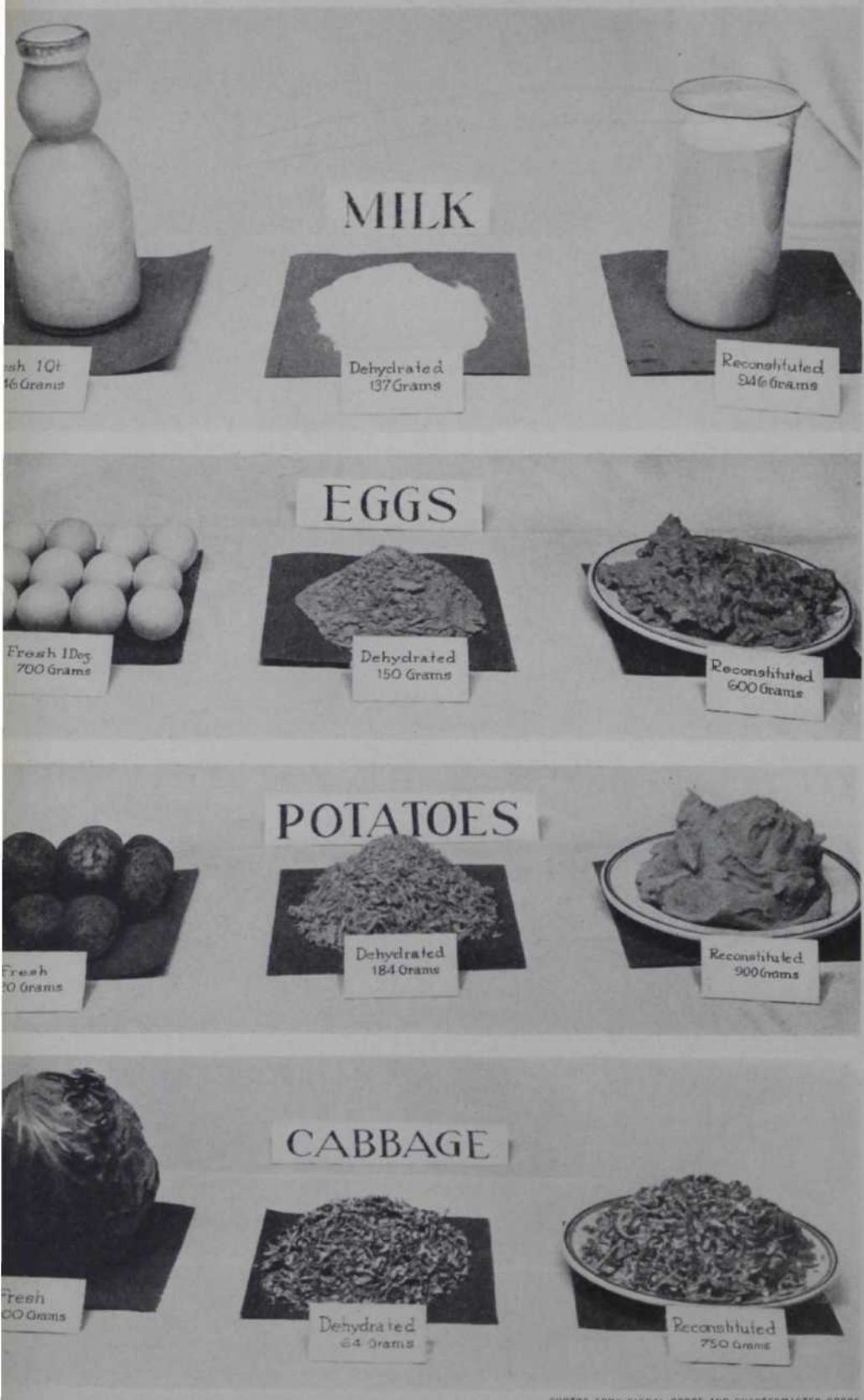
The GENERAL TIRE

The Sign of Tire Inspection, Repairs and Recapping by Experts Who Know How

Trainers, Too, Need Rugged Tires. Unimproved fields . . . constant inexperienced take-offs and landings . . . call for maximum safety in training ship tires. Shown above are five Boeing trainers destined for Peru, Great Britain, China, U. S. Navy and U. S. Army *(top to bottom).*

Square Meals in Shirt Pockets

By FRED DeARMOND



PHOTOS ARMY SIGNAL CORPS AND QUARTERMASTER CORPS

The fresh foods on the left weigh 3,466 grams. Dehydrated they weigh only 535. For many foods the difference is even greater. In world-wide war such saving of cargo space can play an important part in solving supply problems

ARMY subsistence men are excited about dehydration which permits one food ship to do the work of nine

ONE OBSTACLE to the second front is transport.

To put an expeditionary force overseas we need 15 tons of ship space per man, another ton and a half a month (unofficial estimate) to keep him supplied. A part of that space carries weapons, the other part carries food. If the part devoted to food could be reduced, the soldiers could be better armed.

That's why subsistence men for the armed forces are excited about dehydrated foods:

"We can't build ships, then convoy them through submarine-infested seas just to haul water."

Some fresh vegetables contain as much as 90 per cent water. Moisture in dehydrated foods is as little as 3½ per cent, seldom more than seven.

"A ship's 'ton,' or 40 cubic feet of cargo space," says Col. Paul Logan, nutrition expert in the subsistence division, office of the Quartermaster General, "will carry 920 pounds of canned potatoes. The same ship's ton, filled with dehydrated potatoes, will provide, when 'reconstituted' (rehydrated), 3,980 pounds. This means that, in terms of potatoes, a ship's ton is stretched more than four times. For every four shiploads three could be spared for something else—bombs, for instance."

Furthermore:

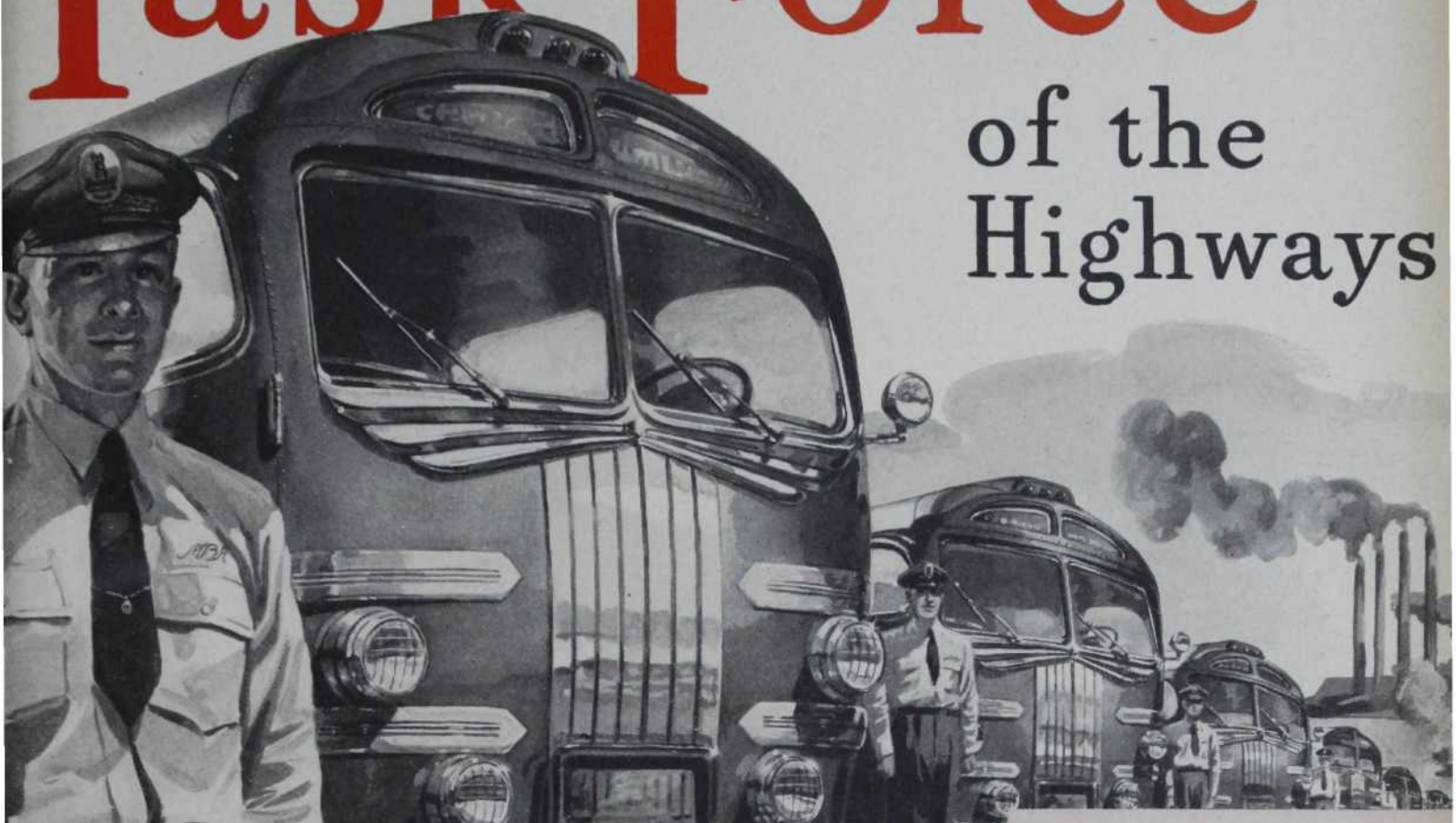
Three dozen dried eggs weigh one pound; a case weighing 52 pounds reduces to eight.

Twenty-five cases of citrus juice reduce to one case of concentrate.

An ordinary steer yields 354 pounds of lean beef; dehydrated, this reduces to 88½ pounds.

Powdered milk can be shipped across the continent as cheaply (this is an estimate) as fluid milk can be moved six miles. A Flying Fortress could lift

Task Force of the Highways



AMERICA'S *great navy has a term for a force assigned to the performance of specific and definite war jobs . . . "Task Force!"*

And that's a fitting term for America's intercity motor bus fleet . . . a Task Force performing its special and vital wartime jobs on the highways.

This Task Force now is actively at work in every part of the nation . . . in war production areas where workers must be carried to and from their jobs . . . in farming sections that are calling for help with the harvest . . . in every community where army selectees are being summoned for service . . . at camps and bases that require direct and efficient movement of manpower.

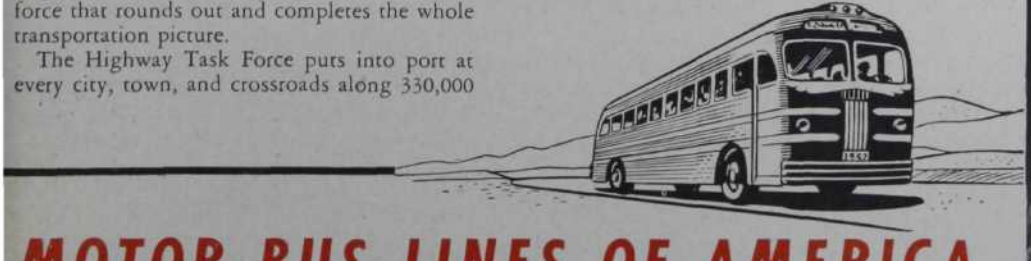
In the performance of these special transportation tasks . . . in serving 70 million Americans who live at "in-between" points . . . and in reaching thousands of communities that have no other means of public travel . . . *buses are irreplaceable.* Here is a powerful and flexible force that rounds out and completes the whole transportation picture.

The Highway Task Force puts into port at every city, town, and crossroads along 330,000 miles of highways. And as the war effort grows, the number of essential bus travelers grows . . . to an estimated total of 750 million in 1942, *50% more passengers, per bus, per year!*

To serve all these millions, bus lines have "cleared the decks" in full cooperation with the Government and each other . . . pooling schedules and equipment and eliminating all non-essential services. The public, in turn, is co-operating with good natured acceptance of occasional inconvenience as bus facilities are pressed to capacity.

Thanks to this cooperation, buses are able to "share-the-ride" with more and more people . . . multiplying the passengers carried by each pound of rubber. And as a further gain in rubber conservation, maintenance men are performing near-miracles in extending the useful life of tires . . . with an average that now tops 45,000 miles per tire!

In every mile of operation, everywhere, every day . . . the Highway Task Force is conserving vital materials, while *keeping our highways at work for victory!*



HERE'S HOW YOU CAN HELP INTERCITY BUSES DO AN EFFICIENT JOB FOR AMERICA-AT-WAR:

1. Don't take unnecessary trips.

* * *

2. Travel on Tuesdays, Wednesdays, Thursdays — instead of on crowded week-ends.

* * *

3. Avoid traveling on holidays, during rush seasons and at rush hours.

* * *

4. If you are sometimes inconvenienced, smile it off as a contribution to winning the war.

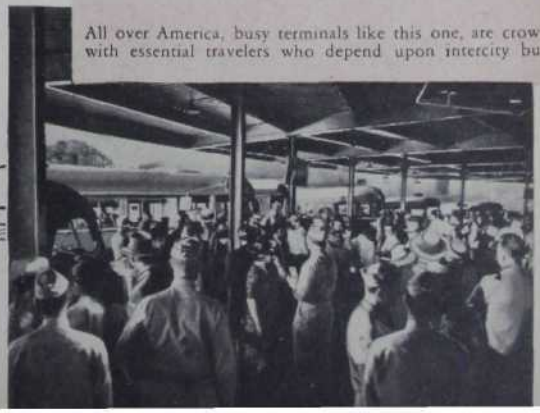
* * *

5. Take as little baggage as possible, on any trip.

* * *

6. Consult your bus agent about the most practical times for traveling.

All over America, busy terminals like this one, are crowded with essential travelers who depend upon intercity buses



MOTOR BUS LINES OF AMERICA

NATIONAL ASSOCIATION OF MOTOR BUS OPERATORS, WASHINGTON, D. C.

150,000 quarts in the concentrated form.

"On the average," says the Department of Agriculture, "one ship can carry as much dehydrated food as nine ships could in the original form."

Moreover, most foods lose no more vitamins by dehydration than they would lose in any form of storage. With present processing methods, the flavor is preserved, too. In a recent test in which Army dietetic experts and a Department of Agriculture authority served fresh and dehydrated beets and potatoes on the same menu, the soldiers who ate them could not tell the fresh from the dehydrated vegetables.

That taste test marks achievement of a goal that has been pursued ever since Napoleon said "an army marches on its stomach"—and proved it by losing the war with Russia.

"If he had had dehydrated foods," enthusiasts say, "the retreat from Moscow would not have been a tragedy for his Grand Army."

In our own Civil War the War Department experimented with desiccated vegetables and concentrated milk, which General Sherman's soldiers called "desecrated" and "consecrated."

During the World War our armies got a few dehydrated foods which they disliked so heartily that, but for a few enthusiasts who kept on improving it, the science might have been forgotten.

Today, although dehydration is a method of drying food, all dried foods are not dehydrated. Technically:

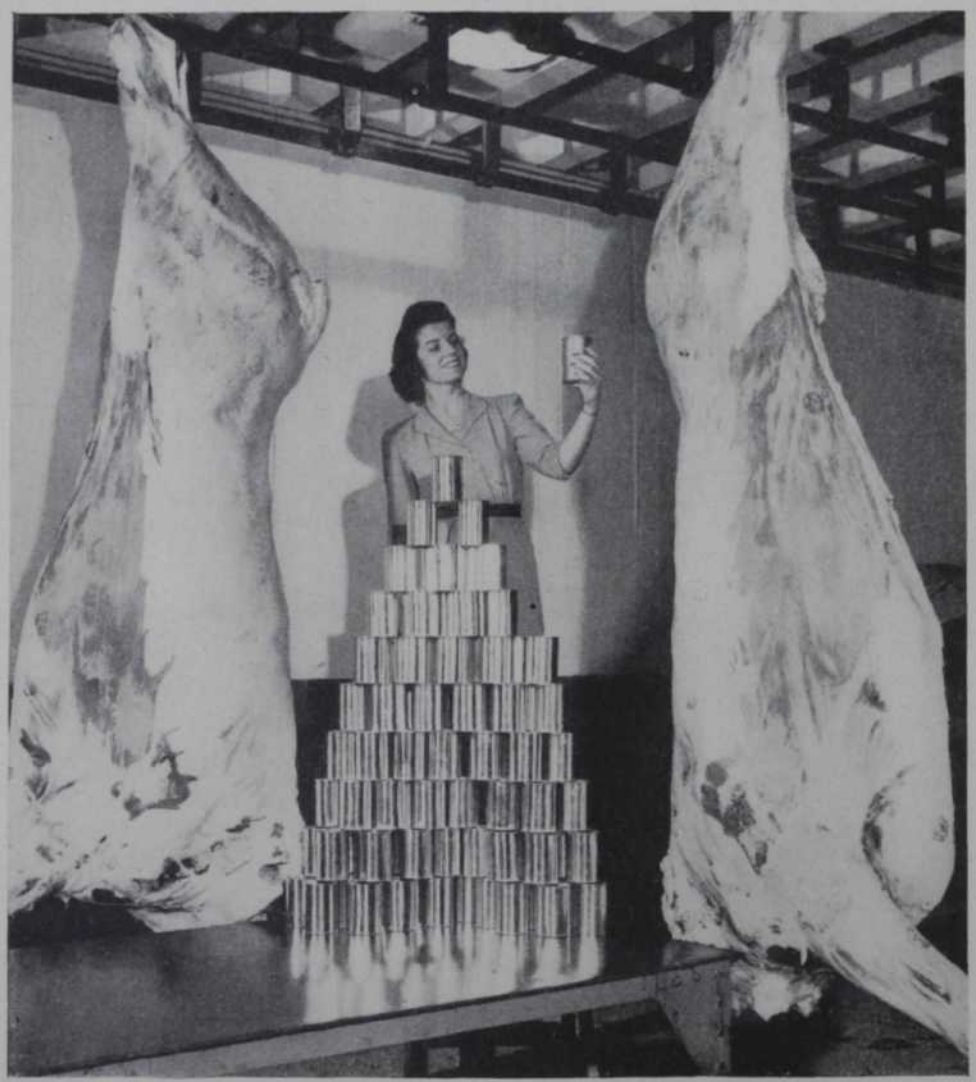
"Dried" ordinarily refers to removal of moisture by sunshine, as grandmother dried her apples and peaches on the porch roof and the Indians dried their surplus meat.

"Evaporated" means dried by artificial heat.

Fruits treated by either of these processes retain from 20 to 25 per cent of their moisture; vegetables from ten to 15 per cent.

"Dehydrated" means that moisture has been removed by mechanical circulation of artificial heat. The Department of Agriculture describes a typical process:

Six crates of carrots weigh about 198 pounds. They arrive at the dehydration plant freshly pulled—not more than an hour old. They are then topped, trimmed, washed, scraped and cut into quarter-inch disks, which are spread evenly over wire trays. They are next exposed to steam for six minutes to blanch (scald), and are then placed in the dehydrator at 150 to 180 degrees F. It takes from one to four hours to dehydrate different vegetables. The yield from 198 pounds of carrots is 17 pounds of dehydrate.



ACME

An ordinary steer yields 354 pounds of lean beef. Dehydrated this reduces to 88½ pounds. The two sides of beef here will just fill the cans

Potential sale is large

WHILE only about 20 dehydrated products have had any considerable sale, the potential is considered large. L. K. Harper of the Sardik Food Products Corporation told the American Management Association packaging convention that more than 300 of the 600 principal items in food stores are now or can be dehydrated. Near the top among vegetables are potatoes, cabbage, carrots, beets, turnips, onions and sweet potatoes; fruits include peaches, cherries, apples, the latter in nugget form and tasting somewhat like grandmother's dried apples, only more tart. Milk, both whole and separated, reduces easily to powdered form, the skim milk product containing all the minerals of the original and lacking only the fats. Americans have eaten dried eggs for years in bakery cakes and other foods and may now get scrambled eggs in a package. An estimated 10,000,000,000 will be broken this year.

The Army's problem is in large part one of packaging, because it operates from the Arctic to the Tropics. Best package so far is a five-pound can sealed and packed in gas. Lacking tin, the Quartermaster Corps approved a new "black plate" container but now can't get steel to make it.

Army subsistence laboratories in Chicago have now developed a light container consisting of:

1. A laminated, sealed bag, placed inside.
2. Another type laminated bag, sealed and protected by lead foil.
3. Glassine carton sealed with waterproof glue.
4. On the outside either a doubly-strong, waterproof, sealed fiber container or a wooden box nailed or wire bound, or both fiber container and box.

This container recently withstood a severe test of insect attack, extreme temperature, air and water conditions.

Getting a balanced diet is another problem. Army needs garrison rations, field rations, mountain rations and various individual concentrated emergency rations.

The famous "K" or "parachute" ration consists of three compact little packages wrapped to resist temperatures from 20 below to 135 F. and containing enough nourishment for three good meals. The "D" ration, or "Logan bar" (named for Colonel Logan), is

(Continued on page 85)



Foggy Eyes Make Butterfinger Workers

INCREASINGLY, through office doors and plant gates they stream... an aroused womanpower joining the Battle of Production.

Here, indeed, is opportunity for a woman's nimble fingers and quick understanding. But how will they measure up? Are they fit and ready?

Let's think about their eyes.

For it is scientific fact that 80% of their motions are controlled by their eyes, which also convey 83% of the knowledge that reaches their brains.

Yet one-third of all workers in the country have uncorrected errors of vision. A great many people do not even know that their sight is impaired.

That makes butterfinger workers. Concentration soon tires faulty eyes. Then they fog and jitter—cause errors, accidents and nervous exhaustion, waste time and ruin material.

Because good eyesight is the first essential in good production, new as well as veteran employees should have their eyes examined regularly. And they should not take a chance on incompetent, slipshod service. The best is none too good for the only pair of eyes they will ever have.

Conscientious, professional examination of eyes and vision will determine their true condition. And if correction is called for, scientific care and expert fitting will help each worker keep keen, clear-eyed, efficient, for the patriotic job. Better Vision Institute, Inc., 630 Fifth Avenue, New York.

NOTE: *A reprint of this page for your bulletin board will be sent you at your request.*

VISION FOR VICTORY

★ ★ ★ ★ ★ ★ ★ ★

Copyright, 1942, Better Vision Institute, Inc.

Washington and Your Business



It Couldn't Happen Anywhere Else

THE Interstate Commerce Commission is one of the earliest bureaus of the Government. It is, in fact, the model which only a compassionate Heaven knows how many other bureaus have followed. I.C.C. admittedly knows its business. Fifty thousand depended in Patrick and Henry counties, Va., mostly on the Danville and Western railroad's 26 mile line between Stuart and Fieldale. On their petition, the I.C.C. extended the operations of the D. & W. until August 31.

"It is an uneconomical little stub-end," the I.C.C. said in effect. "But there not being many trucks or good roads we do not see how you folks can get out the pulp wood, ties and lumber so seriously needed by the country in this emergency unless we let the D. & W. run a little longer."

And then—another *and then* will be added for emphasis—in July the War Production Board ordered the rails of the D. & W. torn up. The steel was needed. And they were torn up. This must leave the I.C.C. biting bitterly at its nails. It also leaves 50,000 persons afoot and ties, pulpwood and lumber piled up along a right of way.

England is the other great democracy but this corner denies that such a thing could happen in England.

How Not to Administer

THE moment continuing to be sour, attention will be called to the fact that years ago conservative pedestrians urged makers of automobiles to put governors on their engines so that the cars could not be driven more than 35 miles an hour:

"We can dodge your machines at 35 miles," said the pedestrians, "but at 70 it's eight to five you can catch us."

No governors were put on. On second thought the pedestrian realized he might be able to buy a car himself sometime. So it is with the W.P.B. and the other war bosses. The car is all right. Now and then a driver goes helling through the streets with his horn going.

But the surprising fact is that war production is better than even Industry thought it could be. And Industry thought it knew what it could do.

Maybe We Talk Too Much

STUDENTS of the printed word have no doubt believed that the W.P.B. and the Army—personified by Donald Nelson and General Brehon Somervell—have been tearing at each other's throats lately. Blow by blow reports have been printed.

He's up—he's down—Nelson clinches to save himself—Somervell rocks back on his heels—



This corner has been preferring the less emotional view that the Army and Navy have called for what they want and have compromised on what they can get. The W.P.B. has been trying to produce. Sometimes the casting does not look like the blueprint but the occasional differences do not justify the things that have been printed.

Steel and the Black Market

SOME one on the W.P.B.—not the Board but one of the 70 mile an hour drivers—ordered the D. & W.'s rails torn up:

We must have steel.

At the same time Frank Higgins down in Louisiana told what every one knew. There has been a black market in steel and a lot of other things. Therefore the steel shortage has not been what it seemed to be. Henry J. Kaiser was told there is no chrome, would be no chrome, and he could not have any. He went to mining and smelting and had chrome.

There could never be enough aluminum, it was said, to serve the needs of the expanding program. But Reynolds and Alcoa said they could provide what was needed.

Of Course There Is Confusion

WHEN Kaiser came to Washington to sell his program for making cargo-carrying planes:

Every one was cooperative. No one just sat back and said "no."



But it wasn't that easy.

I sat in a room with 16 big men. Lots of braid in that room. At the end of two hours there were 16 different opinions.

That was as normal as young love in springtime. This corner will repeat a previous allegation that the war production program is doing very well, thank you.

The talk of shortages is overdone in most lines. Army and Navy now know what they must have. For a time they were shooting in the dark.

That permits W.P.B. to pay more attention to civilian needs. Elmer Davis seems to be doing a good job of suppressing the interdepartmental caterwauling.

Admiral Leahy has reamed out the White House



Here comes the Future!

The world of tomorrow... a world with infinite potentialities for human betterment... is in the making *today*. Science and industry... pooling their efforts and resources to make America self-sufficient... are making discoveries which will contribute to better living.

Among these discoveries is "synthetic rubber." In the search for a substitute for natural rubber, a whole series of remarkable rubber-like materials has been developed. Through the magic of synthetic organic chemistry, atoms are combined in ways that never occurred in nature, to yield materials that can be made to fit particular applications.

In many respects, these "substitutes" are superior to natural rubber. They are more resistant to oils, solvents, air, and water. Since their molecular structure can be *controlled*... and since the synthetic chemicals of which they are made are largely *interchangeable*... these materials can be produced in a great variety of novel and useful forms.

Developed by no one individual... no one organization... but by many minds working together... these amazing substances are a triumph of scientific and industrial co-operation. Today, they are being used for bullet-proof gas tanks, cable coatings, and other strategic defense purposes. Tomorrow, they will be used in clothing, house furnishings, and hundreds of other manufactured articles.

"*Vinylite*" *plasticized resins*—one type of synthetic rubber—and *Butadiene, Ethylene Oxide, Ethylene Dichloride, Dichlorethyl Ether*, and *Dichlorethyl Formal*—basic chemicals used in tank car quantities for making other synthetic rubbers—are among the more than 160 synthetic organic chemicals produced commercially by Carbide and Carbon Chemicals Corporation.

•

The great strides made in the field of synthetic organic chemistry by Carbide and Carbon Chemicals Corporation have been facilitated tremendously by technical assistance in the use of special alloys and metals developed by Electro Metallurgical Company and Haynes Stellite Company; by the special carbon products of National Carbon Company, Inc., and by the application of many engineering and processing methods perfected by The Linde Air Products Company —which companies also are Units of Union Carbide and Carbon Corporation.

CARBIDE AND CARBON CHEMICALS CORPORATION

Unit of Union Carbide and Carbon Corporation

UCC

30 East 42nd Street, New York, N. Y.

PRODUCERS OF SYNTHETIC ORGANIC CHEMICALS



One of a series illustrating Cyanamid's many activities.

Wouldn't Newton be Surprised!

Sorry, Mr. Newton, but there will be a slight delay in the working of your law this year. During the pre-harvest season countless apples will defy the pull of gravity and refuse to drop until orchard men are ready to pick them.

How can a natural law be so defied? Naphthalene Acetic Acid, formerly a rare chemical, is the agent . . . and it is saving millions of bushels of the nation's apple crop from damage and decay caused by dropping. In the past, the loss from this cause has been appalling.

Mixed in a solution and sprayed over the trees, Naphthalene Acetic Acid makes the fruit stems adhere longer to the twigs —sometimes weeks longer. If applied at the right time and in the right way, a tree's normal pre-season drop may be reduced as much as 50%! Think what this means to a man whose business is growing apples. In some cases, especially in stormy seasons, a great potential loss can be turned into a profit. And it means more and finer apples for the nation's breadbasket, too, for they are given a better chance to develop in size and quality.

The use of Naphthalene Acetic Acid was developed for this purpose by the U. S. Department of Agriculture. The chemical had been a laboratory curiosity—made only a few grams at a time.

American Cyanamid Company found a way to produce it on a commercial scale, so that Naphthalene Acetic Acid is now available through distributors to apple growers and farmers in ready-to-use form at a cost which permits its wide application. In such practical ways is Cyanamid chemistry helping to strengthen and preserve America's resources.

American
Cyanamid Company

30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

MOLDING THE FUTURE THROUGH CHEMISTRY

bottleneck on military affairs. At least he has had some early successes.

Pants or No Pants

NOT long ago wool was short. We took the cuffs from our pants. The ladies, bless 'em, were told to tighten up their skirts. A Victory Model for overcoats looked pretty skimpy. We were told that reworked wool, cotton mixtures, and other devices might be resorted to.

"But," writes a correspondent, "I have not been able to get a bid on my June clip on my farm in Tioga County, Pa. My farmer writes me that only two Pennsylvania counties have been able to sell their wool this year."

Explanation seems to be that Army and Navy built up strategic reserves, in addition to their purchases for immediate use. Two-thirds of the wool for domestic consumption was imported for a time, partly because the price was lower and partly because the foreign wool was preferred for some uses. Now the British Government will up the price of Empire wool by 50 per cent, which means a resumed demand and a better price for our domestic product.

"That's the way it looks," said a wool authority. "Unless the war goes sour on us."

Oil Shorts and Long Wools

IT was between wars in London. The Queen, God Bless Her, had entered the royal box. The play was "The Farmer's Wife." The lady who sat next to this corner drew in her breath:



"The Queen," said she, "is wearing woolen underwear. I can see it over the edge of her decolletage."

She certainly wore her fur coat throughout the play. Most of us wore our overcoats. No harm done by the chill, which is a fact to be remembered by those who dread the prospective shortage in oil this winter. Long woolies will not even impair our social relations.

Locos Would Loosen Goose Bumps

IF the steel can be squeezed out, though, and the roads are enabled to build 125 more locos and 7,000 tank cars we may be as warm as ever this winter. With that additional rolling stock the roads say they can haul all the oil needed. Here's something to remember, too. The railroaders say:

> We haven't any illusions about this. When the war is over we will be overstocked with a lot of costly cars and engines just as we were before. But we'll buy 'em if we are given the steel.

May Be Plenty of Both

SOME in the W.P.B. say that many of the so-called shortages are unreal:

> What seems to be shortages are sometimes just overpapering. If we can hold our plans down to our needs there might be plenty of most everything.

Remember the 2,000,000 pairs of spurs bought during the First War?

Character Reading for Petrillo

IN l'affaire Petrillo the master of the musicians is being bedamned because he will not let his men make records to be played on the radio or in public places.

Maybe that wasn't nice, but Mr. Petrillo is within his rights.

The Supreme Court gave labor unions immunity from antitrust and antiracketeering laws. Justice Frankfurter wrote the decision and even a great many laymen can understand it. Congress could change the law but Congress refused. The administration did not bring pressure on Congress.



Those who do not believe the labor unions can do as they please may examine the statements of Thurman Arnold, antitrust specialist in the Department of Justice. If Mr. Petrillo weakens under the clamor it will be only because he lacks that intestinal fortitude we used to talk about before we gained courage to refer openly to guts.

Brief Report on the War

IN military circles a second front in 1942 is regarded as desirable but unlikely. A 4,000,000 man army is considered the smallest practicable force for an invasion of the Continent. England has been so drained of man power for her various fronts that the bulk of such an army must come from the United States. Our army, say the military men, cannot safely be ready for an operation of the magnitude suggested before 1943.

By that time the ship shortages will have been overcome and there will be plenty of naval vessels for convoy patrol. Continued bad news is anticipated for 1942.

A Job for the Chambers

IT might be a good idea for Chambers of Commerce to plan for medical attention in their communities. All the doctors and nurses now available will be needed for the armed forces:



"The Red Cross needs 66,000 nurses," says Chairman Norman Davis. "Every eligible nurse should join," declares Surgeon General McIntyre of the Navy. Surgeon General Magee of the Army says "the Army's need may double at any time."

Of course the Army and Navy must come first. But, if all the doctors and nurses are taken, 122,000,000 persons will be left with slight protection. There is no patriotism in measles.

The Color Line Is Fading

INFORMED officials at the W.P.B. say the color line is giving less trouble in industry:

> Even manufacturers who feared labor trouble if colored workmen were employed have forgotten their fears. Not all, of course, but many. Most workmen are fine.

The Army is press-agenting its colored soldiers. When U. S. Senator Bankhead asked that colored soldiers from the North be not sent into the South he based his request on the southern desire that race prejudice be not aroused.

So Here's a Story

A VERY eminent lady went to a large southern city to deliver a lecture. The mayor met her:

"These gentlemen are in my party," she said, pointing to two colored men.

"Sorry," said the mayor. "Goodbye." The hotel

A COMPANY THAT MADE BILLIONS OF METAL UNITS LAST YEAR IS READY TO DO MORE War

Continental Can Company wants to work with any industry as a prime or sub-contractor of sheet metal work, stampings and sub-assemblies

Here is what we offer:

▶ 45 plants conveniently located from coast to coast.

▶ 7,738,500 square feet of floor space, part of which is available for additional war work.

▶ 16,000 workers (including machinists, engineers, draftsmen, tool and die makers) skilled in mass production of metal units.

▶ 37 years' experience in making metal containers of every size and shape—plus bottle caps, fibre containers, metal household items.

▶ Current experience in contract work for the Army, Navy and Air Corps.

▶ Precision manufacturing machinery for many kinds of metal work.

▶ 7,000 stable sources of supply for materials and equipment.

▶ Contacts with more than 12,000 companies we serve.

▶ Credit: rated highest by all agencies.

▶ The resources (plants, laboratories and facilities) of a company with 35,000 stockholders and an annual business in 1941 of $136,652,016.

▶ An alert, progressive management eager to help you with your production problems and to serve America.

▶ A War Products Council representing all major departments of the company to coordinate and expedite the handling of war business inquiries.

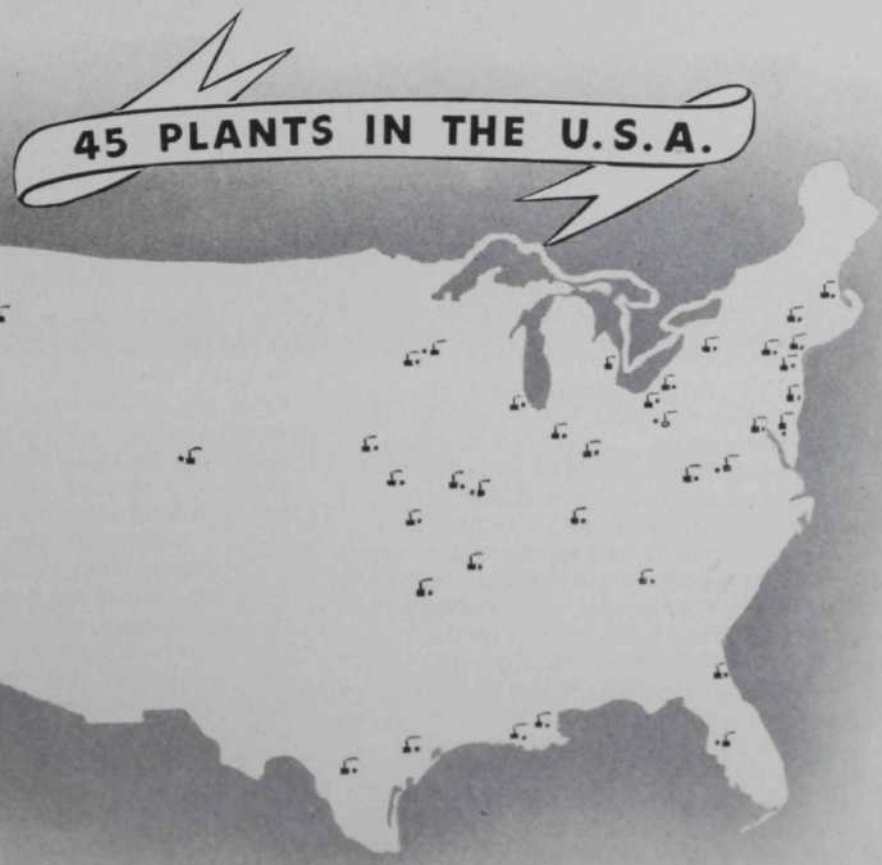
This council is organized to give you quick action . . . to help you or tell you promptly what you want to know about Continental's ability to handle any job. Write, wire or phone War Products Council, Continental Can Company, 100 East 42nd Street, New York City, or any sales office.

NOTE: *Continental is still turning out "packages to protect America"—cans to carry needed food to our armed forces, to our Allies, and into American homes. We will continue to make these cans—as well as other containers for essential products as defined by WPB.*

CONTINENTAL CAN COMPANY

100 EAST 42nd STREET, NEW YORK CITY

work



Sales Offices in:

Baltimore, Md. Chicago, Ill. Cincinnati, O. Denver, Col. Detroit, Mich. Houston, Tex. Jacksonville, Fla. Jersey City, N. J. Kansas City, Mo. Los Angeles, Cal. Malden, Mass. Memphis, Tenn. Nashville, Tenn. New Orleans, La. New York, N. Y. Omaha, Neb. Passaic, N. J. Philadelphia, Pa. St. Louis, Mo. St. Paul, Minn. San Antonio, Tex. San Francisco, Cal. Seattle, Wash. Syracuse, N. Y. Wheeling, W. Va. Wilkes-Barre, Pa.

keeper said, "They may be in your party, but not in my hotel." That's how it stands.

Run of the Mine Stuff

SAMPLE canvass by the U. S. Chamber of Commerce indicates a tremendous market for almost everything when the war is over. . . . That means plenty of work for almost everyone. . . . Which should put a crimp in the W.P.A. . . . Eric A. Johnston, Chamber president, thinks the American habit of buying on the instalment plan will be a major factor. . . . Fog over the Aleutians would be pierced by Navy authorities if politicians would permit. . . . Navy chiefs do not think the Aleutians have any military secrets the Japanese do not know. . . . $500,000 to be first instalment of cost of importing farm labor to save California's crops. . . . Every one foresaw the farm labor shortage except the official foreseers. . . . Much of sugar beet, grape and tomato crops will be lost. . . . Army and Navy complain *sotto voce* that the progress of the war is being slowed up by the necessity of first educating and then convincing political leaders. . . . Same thing was heard in every other war. . . . Bernard Baruch's friends think his appointment as chief of the rubber untanglers was the easy way of getting him into the picture. . . . He has been barred out since the war began. . . . Yet his overall plan of control is now regarded as inevitable by some insiders. . . . Total cost of the First War's Food administration which handled approximately one-half of the products the O.P.A. is now handling was $7,300,000. . . . Henderson has been given $120,000,000 for one year. . . . He has money enough to hire 60,000 persons.

This Isn't a Bit Funny

WAR Department gives $200 burial expenses to relatives of soldiers killed in action.

But the widow does not get the money unless she can produce evidence that the coffin makers complied with all the rules covering wages and hours in Government contracts.

A Little of This and That

NOT likely that the bill forbidding the payment of commissions on government contracts will "disturb the legitimate and long continued . . . sales on a commission basis," said Senator David I. Walsh, chairman of the Naval Affairs committee. "It was designed to prevent fly-by-night people making excess profits." . . . The same situation developed during the First War and at the instance of President Wilson the legitimate sales agents were protected. . . . 70,000 articles apart from weapons are being bought by the Quartermaster Corps. . . . Nineteen of 45 states reporting insist on retaining present weight and length limits on interstate trucks. Their roads are not strong enough to stand up under the fast heavyweight trucks carrying war loads. . . . Some states' rights opposition to federal interference manifested. . . . Lend-lease shipping slowed up by British regulations requiring separate manifest for each cargo item. . . . American S.O.S. uses single bill of lading covering entire cargo. Saves time.

They're Afraid to Work

THOUSANDS of reasonably hale old men are reluctantly sitting on their hunkers when they might be at work in the fields saving the crops:

No pensioner dares accept temporary employment lest he be docked to the amount of his earnings or, if the independent income exceeds the pension sum, suffer the penalty of being dropped from the rolls entirely.

Representative Gearhart of California speaking. He says Congress did not think it through when the Social Security Act was passed. Just vibrated with emotion.

Story of a Pensioner

GEARHART tells of one pensioner who was unfortunate enough to break his reading glasses.

A collection was taken up in the privacy of his lodge and new glasses were presented with an appropriate lodge ceremonial and lovefeast.



A Social Security "snooper"—Gearhart's word—learned about it and the pensioner was docked the $25 the glasses cost. That, says Mr. Gearhart, "is one for the book."

Aren't We a Polite People

WHEN the enemy diplomats were sailed away on the Gripsholm the State Department gave them a banquet which was perhaps the most lavish spread on record in New York harbor. During the champagne-cocktail hour which preceded the really heavy eating a procession of stalwart waiters clad in shining white placed silver trays of appetizers on the great table.

"Fall to, gentlemen," said the M.C.

"No," said the Japanese diplomats. "Japanese accustomed to being waited on. Japanese will not walk up to table and help selves. Not nice."

So they were waited on. At the same time their friends in the East were knocking American men and women about and murdering prisoners of war. Returned Americans were lucky to get away with a spare shirt. The Japanese filled the hold of the Gripsholm with American goods.

Gossip at Government Tables

SELECTIVE Service is honestly eager for men who think they have good reason for draft postponement to make use of appeal boards. . . . Neither common sense nor patriotism in taking the right man at the wrong time. . . . Coordinator of Transportation Eastman reads one mystery story each night. . . . District of Columbia, says the Department of Commerce, requires dairy farmers shipping milk into the District to use four hemstitched towels on each cow each day. . . . International communications due for control. Nineteen companies now send messages. . . . Federation of British Industries reports that after the war the "danger of bureaucratic influence and the stifling of individual efforts" must be avoided. "A common policy between the United Kingdom, the Empire and the United States is essential, although difficulties are realized." . . . "During the immediate post-war period a measure of government control over industry must be maintained." . . . "Any suggestion for a more permanent association of government with industry should be fully discussed with industry . . . if justified should be carried out by agreement and in collaboration with industry."

Herbert Corey



America's Secret Weapon

You won't find it on the production lines at Rock Island or Willow Run.

It isn't guarded at the Brooklyn Navy Yard, or tested at Aberdeen.

But it's the toughest weapon these men you are looking at will ever take into battle. It's the stuff with which all our wars are won.

The boy in the uniform doesn't call it *morale*. That's a cold potatoes word for something John American feels deep and warm inside.

Perhaps he can't give it a name. But he can tell you what it's made of.

It's made of the thrill he gets when his troop train stops at a junction point and fifty good-looking girls are at the station with cigarettes.

It's made of the appreciation he feels for a bright new USO clubhouse where he and his friends can go for a few hours' rest and relaxation.

It's made of laughter and music—when Bob Hope or Lana Turner visits his camp with a USO show.

It's even made of a cup of coffee and a Yankee smile—at some lone outpost in Alaska or the Caribbean

Maybe it's just a feeling of kinship with this land of a hundred million generous people. Maybe it's just the understanding that this whole country cares; that the soldier is bone of our bone; that he and we are one.

Name it if you can. But it's the secret weapon of a democratic army.

What can you do to sharpen this weapon? Give to the USO. This great national service organization has been entrusted by your government with responsibility for the service man's leisure needs.

The requirements of the USO have grown as enormously as our armed forces themselves. This Spring we must have $32,000,000.

Give all you can—whether it's a lot or a little. Send your contribution to your local chairman or to USO, Empire State Building, New York City.

★ USO ★

No Business *Can Escape Change...*

BUSINESS, adapting itself to war, brings out new products for both military and civilian uses

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

1 • A RAPID drying shop paint for use on prefabricated housing units can be used without a sealer on plywood or ordinary lumber. It protects the building against weathering even though the finish coat cannot be applied immediately.

2 • A PLASTIC sheet is now made in a dark blue color that permits store and other windows to have full illumination during dim-outs. It can be attached to holders that permit it to be rolled out of sight by day and pulled down at night.

3 • A TOUGH cotton fabric woven as a ten-mesh screen and with the openings filled with a translucent plastic is available as a flexible substitute for window glass or as a covering to minimize the shattering of glass in a nearby explosion.

4 • FOR PROTECTION against flying glass in explosions there is now made a heavy felted blanket on an adhesive fabric center. It can be installed permanently or on a roller or other movable form.

5 • FABRICS are now coated with a synthetic resembling rubber and applied by the same machinery. Raincoats made of it do not crack at low temperatures or stick at high and weigh two pounds less than rubber ones.

6 • A CHEMICAL for treating blueprints and other important papers protects them against water, oil, grease, dirt. The treated paper is easily cleaned when soiled, and longer wearing.

7 • A NEW typewriter ribbon is non-smudging. It uses an ink which can be erased easily or eradicated by chemicals quickly.

8 • TO KEEP floor trucks, workstands, and the like that operate on casters or swivel wheels in place, there is a positive lock operating against the floor. It is set and released by a foot lever; is out of the way when raised, yet easily found and locked when needed.

9 • A NEW and simplified color perception test to detect color blindness is made so that it may be easily used to test inspectors and other workers who need good color vision. An instruction handbook accompanies each test book.

10 • AS A substitute for hard to get metal tubing and fittings a plastic tubing with plastic flare type unions and half unions is made. It is suitable for use with water, gasoline, alcohol, many other liquids and has good working pressure and high resistance to fatigue from flexing.

11 • A NEW line of protective work clothing is made from flame-proofed fabric. Gloves, cover-alls, helmets, aprons give comfort, economy, and less awkwardness.

12 • A SUBSTITUTE for rubberized fabric gloves is now made with a new synthetic which is said to give a flexible and long wearing glove that's resistant to oils, greases, solvents, acids, caustics and abrasives.

13 • A NEW lens for welding aluminum cuts out the objectionable glare yet lets the worker see what he is doing. It is ground and polished for good optical vision and fits any welding goggle accommodating a 50 mm. round lens.

14 • A NEW package to keep closets dry and prevent mildew contains a chemical which extracts moisture from the air and drops it into a bottom compartment. It also contains activated charcoal to absorb odors.

15 • A FOOT press with special mandrel and guide is now made for marking nuts. Interchangeable mandrels can be used for different sized nuts and interchangeable stamping type or solid dies can be used for the marking.

16 • A NEW electric branding device for hand use plugs into an electric light socket. For branding tires, packing cases, plastic materials and other purposes, it has changeable type or dies, is made in several sizes.

17 • A QUICK and easy way for cleaning brass articles of smut and cuprous oxide scale resulting from annealing also removes less metal and thus better preserves the design.

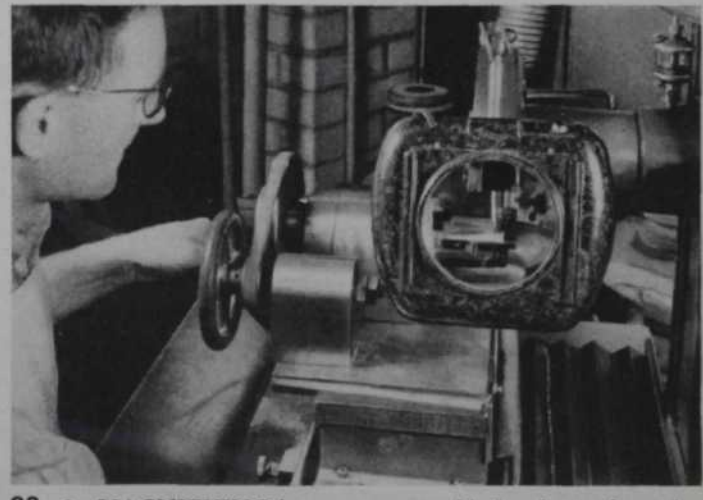
18 • A NEW suit for life-saving gives improved protection during long exposure. It is equipped with knife, whistle, and waterproof flashlight. The neckband is arranged to prevent water from entering the suit. It can be put on in half a minute and may be worn on shipboard as protection against cold and spray.

19 • An electric clock is now made which is transparent except the base. A circular card can be put behind it to furnish reminders for an entire day. The hands are on rotating glass discs which makes the spindle unnecessary.

20 • A SMALL acetylene torch for soldering, silver soldering, lead burning, or light brazing is shaped like a pistol, lights automatically by flint when the trigger is pulled and cuts off to save gas when the trigger is released except when locked on.

21 • FOR CAULKING, cementing and other flowing operations where plastic materials such as crack fillers, sealing compounds and heavy paints are used there is a hand gun to which the material is fed under pressure. Volume of flow is easily adjustable.

22 • TO PREVENT stolen tires a new type lug is made which requires an individual cap to open. It replaces one lug on each wheel, is light weight so as not to interfere with wheel balance. Different combinations are used on different sets for maximum protection.



23 • MAGNIFYING lenses on a movable bracket make easier close inspection and precision work. The head is balanced on the bracket so that it can be easily moved over a wide bench area. Two lenses may be adjusted for focus or used separately. A light is built in.

24 • SMALL CABINETS for fire extinguishers are padlocked for protection against tampering but may be quickly opened for use by pressing and breaking a seal, which leaves the door open. Glass sides permit viewing the extinguisher without unlocking the door.

25 • A POWDER for extinguishing fires is effective on gasoline and grease as well as ordinary fires. No equipment is required. It is non-poisonous and contains no noxious gases. It is packed in 2½ pound containers for home use, larger ones for industrial use. It is fast, and of course causes no water damage.

26 • A SMALL water purifier of the self-contained trailer type will deliver 20 gallons of purified water a minute or 200 gallons untreated through a 2½ inch hose for emergency fire fighting. It includes a gasoline engine to drive the pump and make ozone for the purification system.

27 • A SIMPLE method of fighting incendiaries is a quenching compound in a long hollow tube. One end of the tube is opened and the compound spilled on the incendiary from a safe distance.

28 • A NEW oily substance acts as a dehydrator to remove traces of moisture from machines, tools, steel surfaces, that have been exposed to rain, damp storage, sea water, or perspiration. It leaves a thin rust preventative film of lubricant which does not need to be cleaned off as it is completely soluble in hydrocarbon and lubricating oils.

29 • WHEN heat expansion is necessary to get close fits and eliminate press fitting of small parts, there is an infrared heating unit which gives rapid, dry, clean heat at regulated temperatures. Bearings may be heated in original paper packages to avoid unnecessary dust.

30 • A CHEMICAL soluble in hot water is available as a coating for paper products. This coating makes cartons suitable for holding oils, paints, greases, fats, alcohol, or turpentine. Coating may be by dipping, brushing, or spraying while warm.

31 • FOR machining or other operations requiring an uninterrupted power source with minor voltage variations there is an automatic stand-by unit consisting of a motor generator set, a battery, and control equipment which cuts in the unit instantaneously when needed. All regulation is automatic including charging the battery.

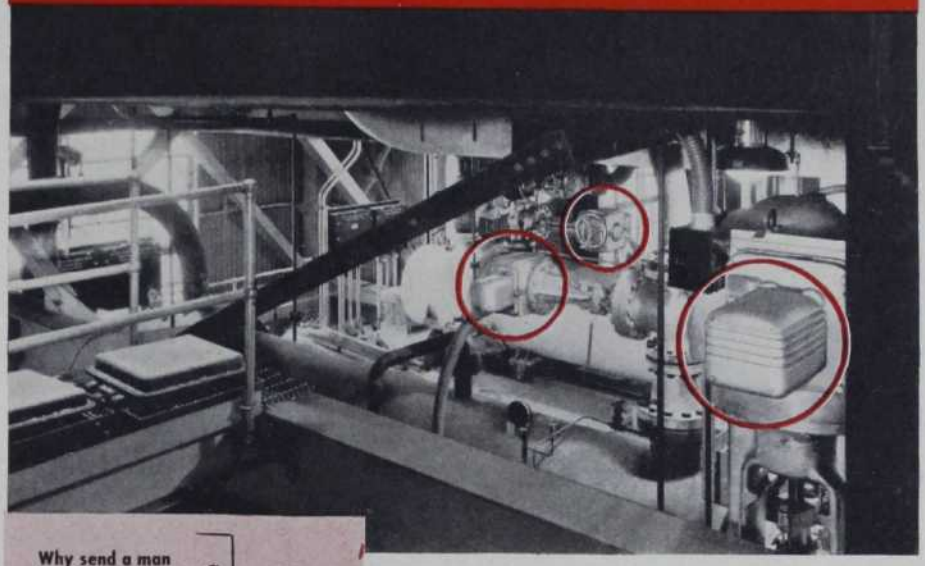
32 • A NEW BLOCK made of sand and clay bonded with bitumen gives an easily handled unit, relatively light, which can substitute for sand bags in many uses. They absorb bullets, splinters particularly well.

33 • A NEW saw for cutting metal has inserted sections of two teeth each around the rim. The design of the inserts is such that the cutting load is transmitted directly to the blade and not to adjacent inserts or the rivets. Inserts are easily replaced without returning to the factory.

34 • A PLASTIC pipe is now made in the same dimensions as steel pipe of two inches outside diameter and less. It is tough, unaffected by water, affected by few solvents. It can be welded, heated and bent, cut with a wood or hack saw, and threaded with ordinary iron pipe dies. Standard flanges are available, other fittings may be soon. —W. L. HAMMER

EDITOR'S NOTE—This material is gathered from the many sources to which NATION'S BUSINESS has access and from the flow of business news into our offices in Washington. Further information on any of these items can be had by writing us.

The way to seat and save valves



Valve Control Installation In a Modern High Pressure Power Plant in the Middle West.

Why send a man when you can push a button?



With a C-H Valve operator on every vital valve throughout a widespread or compact system, full control of each valve lies in the pushbutton station at your elbow.

Why spend many minutes when C-H operators require only seconds?



Closing of huge valves against high pressures is a back breaking, time-wasting job. C-H Valve operators close even high pressure valves at the rate of 60 or more inches *per minute.*

Why let manual accessibility design your layout?...



Cutler-Hammer Remote Control permits you to install valves where *best plant design dictates.*

Why get less than full production in automatic processes?

Cutler-Hammer operators automatically and precisely time and control interlocking and sequence operation of all valves for greater speed, uniformity, and production in process plants.

● Proper seating of a valve occurs when the valve is closed not tight enough to jam and not loose enough to be only partially effective. But how on earth can you get proper seating when valve parts expand appreciably as they heat and contract appreciably as they cool off?

The way to get and maintain proper seating with motor-operated valves is to use Cutler-Hammer controlled-thrust-seating Valve operators. They seat a valve and hold it seated under spring pressure. They maintain the same degree of tightness no matter how much the valve parts expand or contract. There's no jamming, no freezing; no need for "final" seating or backing off valves by hand.

Cutler-Hammer Valve Operating units provide fast, reliable and accurate seating for *all* valves . . . high pressure or low pressure steam, gas, chemical process or water. They save time, trouble and expense. Write for further details. CUTLER-HAMMER, Inc., 1251 St. Paul Ave., Milwaukee, Wis. *Associate:* Canadian Cutler-Hammer, Ltd., Toronto, Ont.

CUTLER-HAMMER
VALVE CONTROL
C-H

1892-1942
50th ANNIVERSARY

HELPING BURROUGHS USERS MEET TODAY'S PROBLEMS WITH THEIR PRESENT EQUIPMENT

What is *your* ACCOUNTING or OFFICE MACHINE PROBLEM?

Getting more work per machine per day?

Using operating short-cuts . . . making sure that operators are taking full advantage of automatic features . . . using relief operators during idle minutes or hours . . . rearranging routines or the flow of work . . . adapting machines to new jobs—any or all of these might help.

Getting new reports or statistics?

Redesigning forms . . . posting new records in combination with present ones . . . altering procedures to get desired data as a by-product—one of these ideas might get the result you desire without increasing posting time or effort.

Handling a heavier volume of accounting?

Simplified procedures . . . elimination of intermediate media or operations . . . direct-to-the-answer methods . . . employing shifts—all offer possibilities that save time.

Making machines last for the duration?

Regular inspection . . . thorough cleaning and lubrication . . . accurate adjustments . . . replacements of worn parts with genuine new Burroughs parts . . . overhauling, if necessary—these services prevent mechanical interruptions or breakdowns, and prolong the life of your machines.

★ ★ ★

Burroughs men are ready to assist you. At your call are: (1) a systems and installation staff that can apply its knowledge of machines, applications and procedures to help you meet your changing accounting requirements; (2) a factory-trained, factory-controlled service organization fully equipped to render efficient mechanical service to all users. Call the local Burroughs office, or write—

BURROUGHS ADDING MACHINE CO., DETROIT, MICH.

Burroughs

★ FOR VICTORY—BUY UNITED STATES WAR BONDS AND STAMPS ★

Better Do It Early

(Continued from page 34)

to know that you will be able to get them, perhaps not in such great variety, but no higher in price. The candies and biscuits from England will be missing. I wondered about the sugar rationing and the candy makers and learned that there will be plenty of candy, but that the big, nationally known makers are cutting down their varieties, stressing those which use less sugar and making only those candies of national appeal. There will be fewer candies in tin boxes.

Liquor: To some people Christmas cheer means the kind that comes in bottles . . . and if you are in that group, you may be interested to know that gin is growing scarcer all the time. The plants are making alcohol for the Government. There seems to be a good supply of whiskey on hand, for that, needing age to improve it, is made far in advance of consumption. Due to transportation limitations, the supply of domestic wines is uncertain and imported wines are becoming rare. There are rumors, too, of another tax. Rums may not be so plentiful, because they come in such quantities from Jamaica and Puerto Rico. Liqueurs and cordials come from France and Holland, and dealers promise only the supplies on hand. Some liqueurs, formerly made in France, are now made in the Argentine . . . but there again is the problem of transportation.

Sporting goods: Don't expect too much when you go looking for gifts in the sports shops! Golf and tennis balls are made only from reconditioned rubber and they will be scarce. Makers of golf clubs stopped making them on June 30 . . . but the news could be worse because they tell me there is a good supply in all the warehouses and the prices are frozen. As for tennis racquets, silk for them is growing scarce and gut is more expensive.

For the boys on your list who want inflated balls . . . footballs, basketballs and punching bags, you will learn, as I did, that no more are being made because of the rubber bladders. Baseballs are definitely inferior because they are made of re-used wool. The shuttlecocks used for badminton are not so good . . . they used to be made from feathers from Czechoslovakia. Golf bags are few because of the shortage of leather. And, generally speaking, all sporting goods are ten per cent higher than last year.

The popular-priced sweaters for women and men are still available, but many of them are made from reconditioned wool. Lastex bathing suits, by the way, will soon be out . . . and no new ones coming in.

Pity the worried Electric Appliance man! Unless his shelves are well stocked, he is wondering what to do about Christmas, 1942. While there has been no raise in price, appliances are almost impossible to get . . . and clocks, coffee makers, waffle irons, mixers, heating pads, roasters and sun lamps are still to be had . . . the dealers simply

hold up their hands about what they will do when their supplies are gone. If you expect to give a new appliance to anybody, buy the next one you see.

There seems to be a good supply of fireplace fixings, carving sets, bathroom scales, trays and shower curtains and there are still plenty of gadgets in the housefurnishings sections . . . and, thanks to the "ceiling," prices are no higher. But here again they told me many manufacturers do not promise later shipments on many items.

Handbags: In the matter of handbags, zippers are out and you will find no metal frames. Prices are about the same, although it is likely you will pay $5.95 to duplicate the kind of bag you bought Aunt Susan last year for $5.00.

Definitely there will be a shortage of the toiletries made with alcohol . . . which means perfumes and toilet waters, chiefly. There will be fewer shades of rouge and not so many tones in powder. Compacts of metal will be replaced by compacts of plastics with prices about the same. If you want any of the more expensive perfumes, get them early.

Jewelry: Rhinestone jewelry, always popular for holiday gifts, will still be available. But you will pay $1.95 for last year's $1 rhinestone brooch or clip and the rhinestone bracelets that gleam at holiday parties will still gleam . . . but you will pay $3.95 instead of $1.95 to get one.

Uncle Ben is a prodigious reader . . . but I know he hasn't put a new thing in the house since Aunt Sarah's going, a few years back. It seemed to me a good reading lamp might be the thing for him, but the idea didn't seem so scintillating when I found there have been no lamps made since March . . . that is lamps of copper or brass. There will be no more metal mountings on any lamps. And those dainty Lumarith shades are going to disappear soon, too. There is something in Lumarith which goes into gun powder.

Of card tables and chairs, I discovered there will be fewer and fewer . . . because of the metal parts used in their making. And picture frames and mirrors so framed will be of wood for the same reason.

My expedition ended, I came home with mixed emotions. Many things are going to cost more. Or, costing the same as last year, they may not be so good. But despite rising costs, I honestly believe mark ups have been kept DOWN . . . in all my shopping I did not once have the feeling that the retailer was taking advantage of the scarcity of the product, or of the times. I don't believe my shopowner is an angel any more than you do . . . and I know he is certainly not in business for his health alone. But he has problems of labor shortages, of higher wages, of delayed shipments, of untrained help, of inferior substitutes, that give him headaches of which I know nothing. And, from the other side of the counter, I respectfully salute him, as a good American, doing a hard job as well as he knows how!



Making the Railroad Our Road to Victory

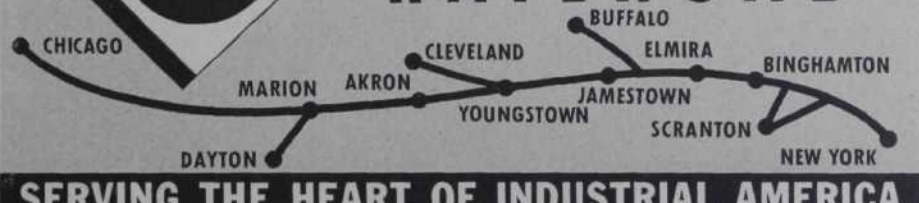
• You men in industry are working to outproduce yourselves. To shatter every record you have made.

Well, America's railroads were just warming up in '41 when they started breaking records. But just wait until our '42 record is written in the books!

Every Erie employee is determined to haul freight as fast as industry can produce it—to keep 'em rolling—to make the Iron Pike our Road to Victory.

Traveling our way? Plan to take your meals en route before *or* after *the usual times. Everybody can't be served at once.* You *will be served quicker, better in our diners by avoiding the rush hours.*

ERIE RAILROAD



SERVING THE HEART OF INDUSTRIAL AMERICA

Fire—The Enemy in Your Plant

(Continued from page 40)

now is upward and to the bad. Especially since we have got into the war. Our first six months of 1942 show an increase in the number of large-loss fires (those of more than $250,000) of more than 52 per cent. All of them destroyed products directly or indirectly related to the war effort.

Those were only the big fires. Little fires can be equally disastrous and, as R. E. Wilson, fire protection engineer of the Associated Factory Mutual Insurance Companies and associate manager of the National Bureau for Industrial Protection, points out, "All fires are little fires in the beginning."

They don't even have to grow into big fires to be disastrous. R. P. Barbour, president, National Board of Fire Underwriters, described a recent blaze:

> That was a little fire, only about $5,000 of property damage in a plant making a small but essential part for airplanes. But that small fire is said to have held up the completion of the entire output of seven airplane manufacturers for weeks.

Since fire is one of the saboteur's favorite weapons, it is necessary today to guard against malicious damage as well as negligence or carelessness.

The way a little negligence can breed a chain of tragic consequences where fire is concerned is illustrated by a classic case—a New England fire that had "everything" when it comes to pointing a moral. In this instance, ten days before the fire, the National Fire Protection Association—an organization constantly being called on these days by both Army and Navy for advice in fire matters—cautioned the company that its stock was stored contrary to the first rule of fire prevention (too much of high value in one place). Before the concentration was broken up, fire started.

Plant employees, insufficiently trained in what to do if fire came, ran around aimlessly, ignoring the extinguishers and other first-aid fire-fighting equipment. The watchman shut off the sprinklers!

The employee who telephoned the fire department instructed, "Come to Gate B."

He didn't know that the department had prepared a scientific plan for fighting fire in that particular plant. That plan called for entry at Gate A.

The firemen found Gate B chained, bolted and padlocked. One of them had to go over the wall and chop off the lock with an ax. When the ladder truck got inside, it stuck in the narrow corners.

Finally it had to quit and go to Gate A after all. Thirty fatal minutes had been lost.

The tragedy is that none of this loss is necessary. Management with the brains to perform miracles of production can certainly exercise the same intelligence in protecting an industry from fire.

The task is a simple one.

The fundamental principles, for any business, number no more than the fingers of your hand. They are non-technical, and they are the same in wartime or peace.

First, and most important: Don't concentrate high value stock in one place. Break it up. Spread it around. Ship it away. Any executive's common sense will tell him whether he has too much value in one location.

Second: Keep a neat house. A clean and orderly plant minimizes fire's chances of starting. Organize inspection crews to go over the property daily. Let the employees do it. The responsibility will increase their fire consciousness. Ask the public fire department for a periodic check-over too. "Inspection, detection, correction," is the magic prevention formula.

Third: Provide as much private fire protection as you can. This means, among many things, a company fire brigade, thoroughly trained and equipped. Such a brigade will know that its first job always is to summon the public fire department; after that it will know fire hazards; how to use extinguisher apparatus, and what extinguisher for what fire; and (important) what things *not* to do. Private fire protection also means automatic sprinklers. They are the first line of mechanical defense against fires. Statistics show them successful in controlling fires in 96 per cent of the times called upon. After them come hand extinguishers—enough, and the proper ones for the proper needs—an automatic fire alarm system, throughout, and from plant to plant, and connected with the public fire service. Finally, enough young watchmen who are fit for the job.

Fourth: Create and maintain a "fire consciousness" among both employers and employees. You accomplish this by constant reminding and training—and reminding again. Many a company has been spared fires by tacking up the posters that all the fire insurance companies provide. The principle of creating this "fire consciousness" is one that every alert executive knows. It is the same as that of advertising: repetition, repetition, repetition.

Fifth: Coordinate your plant organization with the public fire service. The city or town fire department will welcome this. Get to know the chief and some of the fire captains. They'll work on your fire prevention problems with you.

"Good idea," some executives are going to say. "Good program. I'll work it out tomorrow at lunch time."

Here we sound a warning: lunch time won't be enough.

This program cannot be set up over the coffee and apple pie. There are details that will take patient organization and study.

Take, for example, just the matter of inspections. Probably no executive alive, unless he is a fire prevention expert, could list off-hand all the inspections that his property will need to have adequate fire protection. Certainly, to describe the details of each would be far beyond him.

Water pipe valves must be tested, hydrants inspected, hose equipment checked, extinguishers and fire pails all given the once-over. The fire pump (if he has one) must be started, the pressure tank checked, the water level noted, fire doors operated—unblocked and unobstructed.

Sprinklers alone require half a dozen kinds of inspection. If the heads are corroded, they should be replaced. If they have been inadvertently painted, or if they are loaded with dust, they should be cleaned or replaced. The alarm system tied in with the sprinklers should be checked. The distance between the top of every stock pile and the sprinkler head should be great enough that water from the sprinkler can fan out properly to put out a fire.

And what executive knows off-hand that he should constantly be on the lookout for areas newly partitioned off, that inspection should see these and promptly have sprinkler lines extended into them?

Just to bear down on that point—that patient organization and study are necessary: How many heads of companies could tell you what their employees in war plants should be taught regarding fire protection? Or what their plant manager and their department heads should know? For example, here are just a few of the things, listed for easier remembering:

The employee should know:

1. How to give a fire alarm, both on the plant box and on the street box outside.
2. How to use extinguishers and hand hose and other first-aid fire-fighting equipment. And he should learn by doing—by practice with them.
3. How to handle the problems that other protective equipment imposes. For example, that fire hose water and sprinkler system water come from the same pipes, that if you overuse one, you jeopardize effectiveness of the other.
4. Why the "housekeeping routine" is tops in importance, and how it functions: waste disposal, wiping rags, packing materials. All the ins and outs of keeping the plant tidy and in order.
5. What the hazards are in any special process he is working in—and the precautionary measures for minimizing them.
6. Where he fits in the plan for evacuation of the building, if necessary, and just what he is to do.

The plant manager should be responsible for:

1. Constant checking of the plant's whole fire protection set-up. This means water supply, fire alarm provisions, sprinkler protection, situation as to special hazards and the protection of plant records.
2. Appointing a Chief of Exit Drills. This C.E.D. must get department heads to organize each their own evacuation plan and train their employees in how to execute it.
3. Appointing a Plant Fire Chief. This appointee must organize, and train, a plant fire brigade which is suited to the needs of the particular plant. He must institute a routine for maintenance of the fire protection program: periodic inspections, etc. He must appoint, train and oversee fire watchmen; and map out a cooperative plan with all department heads. Also with other occupants of the



TORPEDO AIR FLASK is completely wrapped in protective sheet of KIMPAK, is cradled in wood saddles as pictured here, and is ready for crating – for ultimate delivery to an Axis target.

Protecting the arms that protect America

WAR products for our fighting forces demand the utmost in skilled workmanship and fine materials. But equally important as their production is the getting of these war products to their destinations unbroken and unmarred—in fighting condition! Significantly, more and more of them are being KIMPAK-protected before shipment to points of assembly . . . to final destinations.

WHY KIMPAK* GETS THE JOB

KIMPAK is extremely light in weight, adds little poundage to shipping container. Free from grit and other foreign substances, KIMPAK has softness that safeguards fine finishes against scratches, abrasion and "burning" due to friction. Resilient, it absorbs shocks which might damage fragile or heavy war equipment. Flexible, KIMPAK conforms snugly to either smooth or angular surfaces.

Moreover, KIMPAK is specially treated to resist water, an important feature where overseas shipments are concerned.

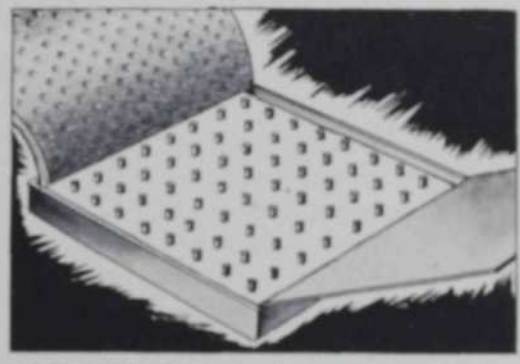
ADAPTABLE TO ALL TYPES OF PRODUCTS

Whether you demand dependable packing protection for products made of metal, plastics, wood or glass . . . whether you ship tiny bearings or huge airplane wings, there's a size and type of KIMPAK to do the job!

Learn more about this remarkable protective material. See how KIMPAK can save time and money in *your* shipping room. KIMPAK available for immediate delivery. Phone, write or wire for speedy service.



AIRPLANE MACHINE GUN shown here is KIMPAK-protected against breakage, abrasion, surface "burning" and other damage during shipment. Soft, resilient pads of KIMPAK are placed at all points of contact with wooden shipping container.



DETONATOR CAPS for high-explosive shells are snugly mounted in holes countersunk in wooden board. Cushioning pads of KIMPAK are placed over detonator caps to guard them against dangerous friction, jolts and jars. This done, container is sealed for shipment.

Kimpak

REG. U.S. PAT. OFF. & IN FOREIGN COUNTRIES

COMES IN ROLLS, SHEETS AND PADS IN ANY WANTED SIZES AND THICKNESSES



*KIMPAK (trade mark) means Kimberly-Clark Wadding

WE Engineered Their Financing



THEY Multiplied Their Profits

A True Story of Modern Methods of Making Capital Work Efficiently

It was easy for the CLEEMAN COMPANY* to increase sales and carry on successfully up to a certain point.

But in 1940, sales rose far out of proportion to the available working capital. It became mighty difficult to maintain inventories, meet payrolls, and carry customers' accounts for the customary periods.

Very clearly, a drastic overhauling of the company's financing arrangements was necessary. Either *more* capital would have to be obtained, or the present capital would have to be employed to much better advantage.

Called in to consult and prescribe, we first scanned all phases of operations and made a thorough analysis of the situation.

We found a seriously *unbalanced* financial statement, with a wealth of usable assets frozen. We planned the way to liquefy them, use them, speed up capital turn-over and working capacity.

Within one year, we increased this client's credit from $40,000 to $125,000. In that period, sales were $991,379 as compared with $392,158 in 1940 . . . and net profit up from $17,492 to $103,827.

Net worth was increased $115,000 through the medium of $103,800 retained profit and $19,500 additional capital contributed, less $7,400 paid out in dividends and in writing off goodwill.

* * * * * *

There may be a parallel to this situation in your business . . . or there may be problems of a different nature but equally capable of successful solution through careful study leading to an engineered financing plan. You may call upon us, without any obligation, to make an analysis and present a plan. Merely write Dept. 1406.

**A fictitious name, but the facts and figures, taken from our files, can be verified.*

Commercial Credit Company

Baltimore

Subsidiaries: Boston New York Chicago San Francisco Los Angeles Portland, Ore.

CAPITAL AND SURPLUS MORE THAN $65,000,000

same building, and with the public fire department.

A department head must do these things:

1. See that there is no overcrowding of stock or workers in his department. Keep aisle space always clear—against the time evacuation may be necessary.
2. See that certain employees are trained to assume special tasks in case of an emergency. For example: safeguarding important blueprints and other valuable records; procedure regarding machinery and processes which operate continuously.
3. See that employees actually have a chance to practice with extinguishers and other first-aid fire equipment. And see to it that all such practice drills are actually held and are properly executed.
4. See that plans for evacuation are thoroughly worked out. This means appointing floor and room captains, monitors, exit guards, and room searchers—all to assure success of the exit plans.

"But holy cats!" management will say at just about this point, "how can our company be expected to know how to set-up all these details?"

The answer is simple. Call in your local fire chief, or write to any one of the numerous organizations interested in fire prevention. The National Board of Fire Underwriters, National Fire Protection Association, The Federation of Mutual Fire Insurance Companies, Fire Prevention Department and many other fire insurance organizations are some of them. Ask for information on construction, protection and organization against fire. They'll send you handbooks packed with plentiful, simple-as-ABC instructions.

Remember, finally, that fire takes more than $300,000,000 from us every year—enough to build 600 Flying Fortresses—enough to wipe out another Cologne—or to finish off Tokyo. Inevitably this year much of fire's toll will be in material headed for the fighting fronts. If management, by intelligence and vigilance, can reduce that amount by even a few per cent, it will be hurling at the enemy just so many more planes and tanks, and speeding the day of victory.

Naming A War

THIS THING of naming the war for the convenience of posterity is not taking so well. In response to President Roosevelt's invitation a sluice of names was offered. It included such labored jawbreakers as the Christianity-Against-Paganism War, the Liberty-Eclipse War. But most of us call it World War II.

That's the way terminology goes. In the 1860's and after, northerners talked of the War of the Rebellion and southerners of the War for Southern Independence. Later, some people in the South decreed that it should be the War Between the States. But history and general usage here and abroad made it the Civil War.

Square Meals in Shirt Pockets

(Continued from page 68)

the nearest thing yet to a synthetic food pellet. A soldier with three of these four-ounce bars in his shirt pocket has a nutrition fire power of 1,800 calories.

Future of dehydrated foods depends on three things:

How much will be needed for lend-lease?

What will be the American housewife's verdict?

How will it affect the grower?

If we are to feed 36 allied nations during the war and the world after the war, it seems clear that this market is limited only by the capacity of our Government to finance such distribution. Long distance transportation costs being what they are, these foods must be shipped in the most concentrated form possible. So we may expect to see dehydration facilities centered for the immediate future on supplying the Army and lend-lease.

Popular in peace-time?

WHETHER it will later become a big factor in the domestic market is not yet clear. The housewife who compares the labor of preparing dehydrated potatoes with fresh potatoes, which need washing, peeling, slicing and cooking, may vote for dehydration. When she considers "reconstituting" dehydrated soup for 20 minutes or opening a can and warming the contents five minutes, she may vote the other way. Time and location as well as convenience affect utility. In the case of those foods that may be obtained from the market fresh 12 months out of the year, dehydration lacks the appeal that it has with fruits and vegetables that enjoy only a limited season. There is less reason to dehydrate cabbage that can be grown in a home garden, than concentrated citrus fruit juices that must be hauled a long distance.

The farmer is interested in how dehydration will affect his market. If it can become the means of consuming his surpluses he will welcome it as a great advance—if lower prices on surplus crops do not pull the whole price structure down to a lower level. The experts say that dehydration is not a market outlet for second-quality foods, although it may be for those that are not first-grade in appearance only.

Whatever the domestic market future, a new industry is unlikely, according to Porter R. Taylor, general manager of the Cooperative Fruit and Vegetable Association. When Mr. Taylor was with the Agricultural Marketing Administration he had much to do with the Government's program to encourage dehydration.

"The idea behind the program was conversion of existing facilities in the food industry," he says. "Where established canners add dehydration facilities to meet the war demand they will be able to adjust themselves in case the dried food boom is deflated by a post-war return to normalcy."



Are you an ichthyophagist?

IN CASE you've forgotten, ichthyophagist simply means "fish eater". And if that describes *you*, here's good news:

Out of the waters of the blue Pacific and the rivers of the Pacific Northwest, fishermen are pulling 'em in by the boatload . . . salmon—halibut—cod—tuna—sea bass—swordfish—and dozens of other species.

Fresh, frozen and canned Pacific seafood will reach your plate in perfect condition via the Northern Pacific Railway—which annually hauls hundreds of carloads of seafood East from the coasts of Oregon and Washington.

This year, a big new customer for seafood shipped by Northern Pacific is Uncle Sam. To fill his orders and yours promptly, we'll be working 'round the clock to maintain the service that has made this railway "The Main Street of the Northwest".

SHIP AND TRAVEL VIA NORTHERN PACIFIC YELLOWSTONE PARK LINE



NORTHERN PACIFIC RAILWAY

The Why's and If's of Shortages

(Continued from page 56)

Aluminum is one of the imponderables that will have great effect on ordinary living after the war. Its price has been reduced 25 per cent (now 15 cents a pound) since the emergency. Its many uses suggest striking changes in items of every day use. Widespread use of aluminum to replace steel would be revolutionary. For example, imagine an automobile of half the present weight.

Electric Power Determines Production Capacity

PRODUCTION of many critical items has been increasing at least 30 per cent a month. In May, 1942, it was 12 to 15 times greater than May, 1941, on some war products. Electric power must be provided to increase the increase.

No war or civilian activity has been seriously curtailed by power shortage except temporarily in the Southeast where drought reduced water levels last fall. Some rationing is likely in certain areas when production reaches a peak this December or January, but utility officials believe civilian customers will be inconvenienced only during the day's peak period.

Peak load in U. S. is now more than 35,000,000 kilowatts—generator capacity is 45,000,000. Maintenance requires some reserve but most of it is an essential reservoir to use during peak periods. If increased daily demand uses up reserve, power at the peak period would be insufficient. In that case civilians might have to forego lights and use of electric cook stoves so war plants could maintain continuous operation. The reserve has decreased 3,000,000 kilowatts in the last two years. No one knows the exact danger point, but it is obvious that a substantial reserve must be maintained to assure uninterrupted output.

This does not mean that everybody will have to turn off lights. Turning off lights in St. Louis would not decrease a power shortage in Louisville. Kerosene lamps and candles won't be of much use except in a few communities. Most of the large cities can stand almost any likely demand. The strain will come largely in the newer industrial areas where manufacturing capacity has developed faster than power generating capacity.

What is being done about adding new generating capacity? Utilities had 9,600,000 kilowatts on order but W.P.B. has allocated equipment materials for only 5,300,000, nearly all of which will be installed by the end of 1943. Each kilowatt of expansion requires more than 400 pounds of steel and copper. Manufacturers of power station equipment such as generating units, steam boilers, valves, have been asked to cut down on utility deliveries in favor of ship propulsion machinery, compressors, equipment for explosive plants, synthetic materials.

The war production program must, therefore, be tailored to fit the cloth. About 86 per cent of industry is electrified and 60 per cent of the power is supplied by central stations. If W.P.B.'s allocation plan is faulty, if war contracts are placed in spots where power is insufficient there will be trouble. If it has planned to take advantage of available electric power, there should be few serious shortages. Most likely dangers are droughts affecting hydro plants or coal shortages affecting steam plants. Present coal storage by utilities is 60 per cent above normal.

Huge production of aluminum is an important cause for stepping up electrical power production, although at present explosives represent second largest consumer of power. It takes 12 kilowatt hours to make a pound of aluminum; only seven to make a barrel of flour; one quarter kilowatt hour for a pound of stainless steel; 20 kilowatt hours per pound of magnesium.

Utility officials still worry over government competition after the war. Public stations, federal and municipal, now produce about 12 per cent of all central station electric power. When a new war plant was located near Denver, a Colorado power company figured it might need about 20,000 more kilowatt generating capacity to hold up its reserve. But public-power advocates have been talking another T.V.A. on the upper Arkansas River headwaters in Colorado. The private company couldn't compete with government generated power. Company officials risk loss of capital used to enlarge present plants if a government plant on the Arkansas River freezes them out after the war.

There Will Be Less Wool in Your Blankets

THE Army soon will place orders for virtually all American wool now available, the War Production Board and War Department recently announced. Mills must use 50 per cent or more of domestic wool on all Army orders.

There is also a large quantity of Australian wool in this country. That country produces about 1,000,000,000 pounds, twice the size of U. S. production. Some may be on the way to England after unloading at Pacific Coast ports. That same wool could then come back made up in English woolens.

Despite the huge stocks, the Government is unwilling to release wool because military needs will depend on how the war goes.

It takes all the wool from 26 sheep to outfit a soldier. Figuring five pounds to a blanket and 32,000,000 blankets for 4,000,000 soldiers, it would take 160,000,000 pounds of clean wool or double that amount of grease wool for blankets alone.

Mills can have only 15 per cent of the amount used last year for civilian purposes. This does not mean fewer garments. They can mix virgin wool with other textiles such as rayon or nylon, use reprocessed or reused wool. Reprocessed wool is largely scrap or waste wool left over from a new garment—cuffs from men's pants come in that category. Made up, it is not easily distinguishable from virgin wool. Reused wool is that obtained from worn out garments chewed up in a processing machine to make new cloth. It was once called "shoddy." Manufacturers dislike that term—it sounds evil, but really isn't. Such wool has good wearing quality but doesn't always retain the lustre of virgin wool.

Wool felt, made from coarse wool, is used in hats, and in belts for paper mills. The same type wool has little other use except for carpets, yet carpets are out of production and the plants are making army blankets. A little felt from rabbit fur was once used in men's hats. It came mostly from Italy and won't be missed. Wool felt from casein is still in the experimental stage, but the outlet for milk is too good in other fields. Little of it would be devoted to wool now even though the experiments had been completed.

Peanuts and Soybeans Pinch Hit for Coconuts

BEFORE the war, consumption of palm and coconut oil in shortenings surpassed any domestic oil except cottonseed. Most of it came from the Far East and Pacific islands. Some is now trickling in from Africa, but that is about all.

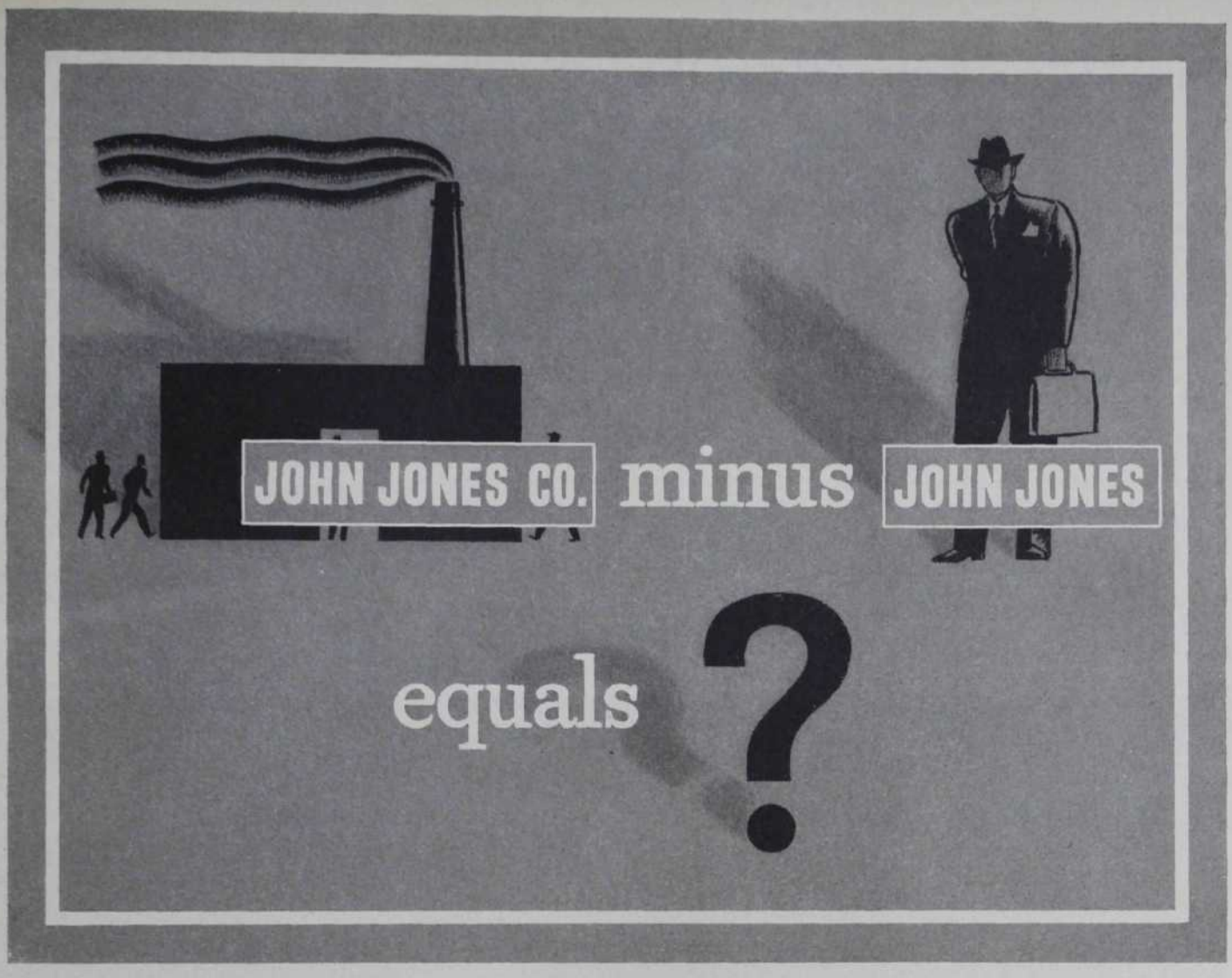
Vegetable oils are also used in soap, paint, varnish, cosmetics. Little domestic oil was used in these products. Use of linseed oil in paints will probably be stepped up as other oils decrease, but large increase in acreage in both United States and Canada is expected to provide for normal demand.

Cottonseed oil was by far the principal domestic vegetable oil used for edible purposes. Reduced cotton acreage has cut down the supply, sent the price from six cents in 1940 to 14 cents in 1942.

The shortage is being remedied by increasing the acreage of peanuts and soybeans and using more lard in cooking compounds. The Government asked that peanut acreage be increased two and a half times. July reports indicated that it had actually increased twice.

Soybean acreage is probably 42 per cent greater than last year. The principal soybean production is in Illinois, Iowa, Indiana and Ohio. More than 400,000,000 of the 498,000,000 pounds of soybean oil produced in 1940 were used in food products. Since then the price has gone from six to 13 cents. In some areas, the crop will exceed the capacity of crushing mills, must be moved to mills that ordinarily crush other kinds of oil-bearing materials. Another job for transportation which is doing many jobs well.

Today packers are using unusually large amounts of lard in the manufacture of cooking compounds. Waste kitchen fats will help relieve pressure by substituting for vegetable oils in the manufacture of soap, glycerin, lubricants and candles.



What's your business worth without you in it?

AS a proprietor of a business, you unquestionably have a pretty clear-cut knowledge of its total value, as well as its income-producing capacity.

You also know that a large part of that value is due to your own activities and management. But do you know what it would bring if sold or liquidated *by your executor?*

If that's a difficult question to answer, ask yourself what you would give for a business property identical with your own if you were buying it from the estate of someone else. The difference between this and the current value of your own business indicates how much of that value will disappear with you . . . will indicate how much your wife is likely to receive when it comes to the liquidation of your business by your estate.

This loss in value can, however, be underwritten so that your family will realize considerably more than the mere liquidation value of the business. It can be underwritten through Northwestern Mutual life insurance.

A talk with a Northwestern Mutual agent will bring helpful suggestions for safeguarding your proprietorship interests. Ask him to show you how little net outlay would be required as a result of this Company's low costs. Ask him, too, how this protection can be converted into retirement income for yourself should you decide at any time to sell your business.



WE ARE THE NORTHWESTERN MUTUAL
LIFE INSURANCE COMPANY • MILWAUKEE, WIS.

1942 DIVIDENDS to Northwestern Mutual Policyholders will be maintained at the same scale as was paid during 1941.

Your Son's a Better Soldier Than You Were

(Continued from page 46)

mothers were good cooks. Many other mothers were not. Often the young men at home filled up on pudding and ice cream. If, during the evening they felt a pang, they knocked off a few hot dogs.

Well, in the Army he gets calories and vitamins by the rule set up by the Nutritional Committee of the National Research Council, the council being a body of real scientists. Then a Master Menu is set up at Army Headquarters with a submenu for each day in the week. Broadly speaking, each soldier in continental United States gets the same food at the same meal on the same day. Under the old rule the mess sergeants bought the major items from the local markets. If the sergeant was a good one the men lived well. If he were not the men did not. Nowadays the meat is purchased in bulk, steaks are cut out and wrapped in oiled paper, packed in cans and sent on to the camps. The sum of table refuse is lessened, the flies are foiled, and, one day with another, the men break about even on their steaks. The same plan goes with other major items, although here and there the mess sergeant buys at the local market. Now and then, of course, something happens. One of the papers issued by the Department of Commerce narrates that one of the states insists that all eggs shall be inspected by the official inspector:

"Each inspector got a fee," is a dialogued fashion of stating the Department of Commerce's story.

But the Army refused to pay a fee for egg inspection for reasons that will at once come to mind. Also the inspector had not inspected. He had merely asked for his fee. So the state said:

"No fee, no eggs."

The eggs were decanted on the roadside and for some time to come wary travelers detoured the scene. But that was an unpleasant exception. The cooks have been trained in the Army schools, and, while it is an article of faith with all soldiers in all armies that all cooks are public enemies, the fact is that most army cooking is good.

Tastes for food differ

THE Army, too, takes into consideration the regional likings of the men. The rookie usually clamors for steak and fried potatoes, but southern men go heavily for pork and hot bread and Atlantic Coast men want pie and doughnuts. Men from the south want chicory in their coffee and in the Middle West nothing but yellow cornmeal is considered fit to eat. In the South this liking is almost treasonable.

The Army wanted to try out some field rations, which are put up in packages for use under the most adverse combat conditions. Six platoons were selected for the tryout. The men were all in good condition but were taken as they came—clerk, bartender, lawyer, farmer, teacher. They were route marched under full packs for four days. The shortest day's march was ten miles and the longest 32. Any old soldier who did 32 miles under pack in the First War, carrying his rifle and ammunition and a pair of hobnailed shoes will admit that 32 miles is a good march. The best the Germans did during the rush on the Marne was 35 miles. At the end of the test period, the six platoons were right on the ball.

That's proof of the food.

It is also proof of the training. The men are given physical jerks and trotted and doubled and all that sort of thing. But they are not overworked. That way they do not go stale. Between times they are exercised with the bayonet, not only that they may know how to stick the enemy, but to build up in them an active desire to do the sticking. The bayonet drill is not, however, carried to the lengths favored in England, where bags are filled with fresh animal blood and the men are ordered to charge them and get themselves well gormed up. This is supposed to make them hate the German and the Jap. In the American Army officers say:

They can hate hard enough. We saw 'em in the First War. Boy, they hate noble.

They would probably miss the blood bag with their bayonets, anyhow. They're humorists.

And what the reporters would do to us!

The third reason why the men in the American army are so healthy is that they are extraordinarily intelligent. Furthermore, the Army deals with them as though they are intelligent. When a bunch of men start for town the camp surgeon is likely to say:

Here's your issue of prophylactics. If you are exposed—use 'em. I don't care whether you lose your immortal souls or not. Maybe you haven't got any. But I'm too busy to bother with you bozos coming around and hollering for help when it's all your own fault.

The result?

The rate of infection from syphilis in today's army is only about 37 to 1,000 in a year. That is a reduction from the 297 to 1,000 in the Philippines after the Spanish War or 215 during the Civil War or 197 during the Spanish-American war. The Army surgeons encouraged the use of prophylactics in France, and the rate went down to 107 to 1,000 in 1917 and to 90 in 1918. Not much was permitted to get into print about this at the time, the American attitude then being that this is a moral question and not a matter of common sense. Of late, however, laws have been enacted giving the Army and the F.B.I. authority to close up infected areas and prosecute those responsible.

But the chief preventative has been the increase of intelligence. Physicians have often observed that, the more stupid a man is, the more likely he is to suffer infection. In other words the infected man has been a fool. The other men of the company avoid him, not only because they wish to save their eyes but because they find no pleasure in dealing with a fool. The idea seeps through the companies. Even a thick-headed man eventually realizes that the other men will have no willing traffic with a fool and no man wants to be known as that kind of a man. And if the theory is not a sound one, it is at least held by some of the best of the Army's surgeons.

The American soldier is on the average five feet eight inches tall when he enters the Army. He weighs 144 pounds, is 33½ inches around the chest, 31 inches around the waist, wears a 9½ D shoe and a size seven hat. If he comes from the South his feet are a bit larger than the average, New Englanders are thicker around the waist, and, on the West Coast the draftees run two inches taller than the Army average. After a few months in the Army his chest measurement has expanded and he is several pounds heavier. If he came in fat, he has been slimmed into symmetry. He wears a half size larger shoe, and, from time to time, he will have other shoes issued if the measurement shows he needs them, for marching under pack and gun increase the horizontal measurements. His sight has improved, his cheeks are hollowed, and he is as energetic as an Airedale pup. Perhaps he once drove five blocks to the movie. He thinks nothing of walking four miles to town, walking miles about town, and walking back to camp. One of the First War's surgeons once examined the first draft of rookies sent to his camp;

"What's happened to Americans?" he complained. "These kids are fat—soft—they get out of breath unlacing their shoes—they are in short not worth a good goldarn."

They toughen up quickly

THREE months later that same outfit was romping through the southern swamps, mud, water, leeches, mosquitoes, copperheads, rattlers, wet blankets, wet camps, lost grub, and doing it with plenty to spare. It's a shame to tell it, but it was the doctor who broke down.

An outsider would say that the cost of a soldier's outfit was almost excessive. But that is only when the outsider looks at the appropriation bills. The money provided must be spread over months, in order not to upset the market, and more clothes must always be ordered than the Army in being can use. Eleven undershirts—some such number—seemed more than even the New Army could use per man when there were only 500,000 in the ranks. Pretty soon there was a shortage in undershirts. The cost of the soldier's first outfit is $90.35, which covers blouse, two pairs of woolen trousers, an overcoat, two pairs of shoes, two flannel shirts, two cotton khaki shirts, two cotton khaki trousers, two cotton garrison caps, and so on and on. In the first year replacements to the sum of $63.56 will be issued to each man. More shoes are on the way. If he cannot be fitted in the 142 sizes and six widths kept in stock, shoes will be made to his measure. If he goes to Alaska it may cost as much

"Load 'em full!" That's the battle cry in the coal fields. Bigger loads save cars for additional war work.



COAL

* * * ANOTHER "FIGHTING FORCE" TO KEEP ROLLING !

Coal is one of America's most powerful weapons — the Nation's greatest single source of energy.

It turns the wheels of war's industries.

It is power and heat and light.

Coal makes steam. It runs trains to haul more coal. Coal is transportation. Coal provides warmth for our home comfort, heats our buildings and factories.

It is among the most abundant of the Nation's natural resources and in the earth of this country is enough to last 3,000 years.

More than a hundred thousand Pennsylvania Railroad freight cars have no other duty in this war than to haul this fighting power—coal and its by-product, coke—to the industrial fronts, day and night.

In never-ending streams, The Pennsylvania delivers it to the power plants, moves mountains of it to feed the coke ovens and, in turn, the blast furnaces.

Coal becomes gas for the open hearth, power for the rolling mill. Without it there would be no steel.

Coal's by-products become explosives, industrial chemicals, medicines and fertilizer that produces agricultural abundance.

Coal saw us through the last war — and coal will see us through this one.

To help move coal to the industrial front is one of Pennsylvania Railroad's most important jobs in war and peace.



Buy your coal now. Help clear the tracks for movement of war materials this fall and winter. ★ *Invest in U. S. War Savings Bonds & Stamps*

PENNSYLVANIA RAILROAD

Serving the Nation

"E" is for EXCELLENCE . . .
An Award for EFFICIENCY

NAVY MEN long have coveted the Navy's blue pennant, with its white "E" for excellence. Now industry, too, is eligible for this honor.

Since August, 1941, the Navy has awarded the "E" to a distinguished few industrial firms for satisfying and exceeding the incentive plan authorized by the President, directed by the Navy Department, and put into effect by the Bureau of Ordnance.

On this page several of the winners are carrying the pennant beyond their factory yards to show business men all over the nation how well both labor and management are doing their part toward winning the war.

Bethlehem Steel Company

has been honored
by the award of the Navy "E"
to the following plants:

BETHLEHEM PLANT, *Bethlehem, Pa.*
FORE RIVER YARD, *Quincy, Mass.*
STATEN ISLAND YARD, *Staten Island, N. Y.*

power to win



The Navy "E" Award to B&W's Barberton Works is "an honor not lightly bestowed and one to be cherished".
Not only in the Navy but also in the Merchant Marine and in large and small industrial plants and central stations, boilers built by Babcock & Wilcox, the nation's largest manufacturer of steam generating equipment, are furnishing steam power for the war effort. G-232

THE BABCOCK & WILCOX COMPANY
85 Liberty Street **New York, N. Y.**

PROUD of its contribution to the flow of war products from the General Motors production front, Delco Products accepts both the honor and the responsibilities implicit in the Navy "E" Award.

DELCO PRODUCTS DIVISION
General Motors Corporation, Dayton, Ohio

SYNTHETIC RESINS RCI INDUSTRIAL CHEMICALS
CHEMICAL COLORS

"*THE RESINOUS PAINT* you make here may well play a vital contributing role in winning a naval engagement in Pacific waters, or in the Atlantic."

Rear Admiral William Carleton Watts, June 24, 1942

REICHHOLD CHEMICALS, INC.
Elizabeth, N. J. Brooklyn DETROIT Liverpool Sydney

On Land, Sea, in the Air...

Sylphon bellows and temperature controlling devices warrant "Well Done" in peace as in war . . . traditionally outstanding in performance.

FULTON Sylphon FOR TEMPERATURE CONTROL

THE FULTON SYLPHON CO.
KNOXVILLE, TENNESSEE
Representatives in All Principal Cities in U. S. A. and in Montreal, Canada and London, England

PEACE-TIME makers of fine radio-phonographs who in war time are proud of being first among instrument manufacturers to be awarded the Navy "E" for outstanding achievement in ordnance production.

THE MAGNAVOX COMPANY
FORT WAYNE, IND.

MAGNAVOX
The Oldest Name in Radio

as $1,000 to provide all the fur parkas and woolen shirts and windbreaker pants and fancy caps he needs. But he will get them. During the First War, the Army was still more or less in its Indian fighting days and issued Stetsons but we learned a lot of things in France.

The first cost of each man's barracks' equipment is $33.01. In the first year other things come in to the tune of $11.80. The issue differs, of course, as the units head for one or another of the 34 places where Americans are now serving. Some companies get mosquito nets, complete with bar rods. The next men need footwarmers and knee wrappers. During an Arctic winter a man needs more than the two-blanket issue to keep him warm. Each man has sheets, a barracks bag for storage, and $17.19 worth of razor, tooth brush, soaps, first-aids, towels and assorted whatnots. One folding chair goes to each three enlisted men, who usually sit on their cots anyhow, and, unless something goes wrong, he can have a hot shower and get into clean clothes in ten minutes after he gets into camp.

Hopkins was unquestionably right when he said that ours is a *de luxe* army. The men get $50 pay and allowances and it is safe to say that each of the 4,000,000 is healthier than he has ever been before. They do not like to be babied or kidded. They are tough as whangleather and hard as nails. Their fathers took every gun they started for in 1918. Watch these tough kids go!

Priority Plans for Customers

(Continued from page 31)

certainty or caution.

5. The layaway plan will maintain a certain semblance of order in the post-victory merchandising period, if conditions are such as to encourage a scramble for goods.

These objectives are laudable and sound in principle. The methods by which they are to be achieved vary with the different sponsors. Let's review briefly some of the programs.

Since the principle of the layaway is old, no individual in this country can claim credit as its sole originator.

But two years ago, F. Vaux Wilson, Jr., vice president of the Homasote Company, Trenton, manufacturers of insulating and building board and of prefabricated homes, outlined to the United States Chamber of Commerce a plan for an "Own Your Own Home" Club, which would encourage people to start saving the down payment for a new home. All elements in the real estate and building field would cooperate in the plan and every well known merchandising device would be used.

In June, 1941, C. F. Hughes, business editor of the New York *Times*, in his Sunday column, "The Merchant's Point of View," suggested application of the Christmas Club idea to the post-war period. The automobile or refrigerator industries would set up clubs into which customers would pay monthly instalments for products to be delivered after the war.

Rolfe Nugent of the Office of Price Administration is working on a plan whereby consumers would be encouraged to start paying now for durable goods. John Maynard Keynes, Dr. Kurt Lachmann, Merryle Stanley Rukeyser, and James L. Wick, business analyst of Prentice-Hall, Inc., have all devised plans or contributed suggestions. The National Association of Gas Appliance and Equipment Manufacturers has developed a program for its industry, which, however, has one or two barriers to hurdle before it will be publicly announced.

Meanwhile the Advertising Club of New York and the American Marketing Association have devised comprehensive plans, the first stressing a technique employing established business channels, the second emphasizing methods of putting the campaign across.

Under the Advertising Club plan assume that you have decided to buy a car for post-war delivery. Obviously, the price is indeterminate but it is the club's idea that broad price ranges be set up, such as $1,000, $1,500 or $2,000 for cars; $150, $175, $200, and so on for refrigerators.

Making a purchase

HAVING decided on the amount and the make, you open a "Freedom Model buyer's account," buying bonds at your local bank which acts as trustee for purchaser, dealer and manufacturer. For this, the suggested compensation for banks is a limited lending power to be granted by the Federal Reserve. Since banks would probably prefer direct income, payment of a small service charge—five cents at the time of each deposit or one per cent—might be preferable to that. The bank would be permitted to pay the dealer something against his commission.

The plan presupposes that you will select a definite product from a definite dealer and stick to that decision for the duration of the contract. If you do, the bank issues a certificate of ownership to you and retains the bonds to protect the dealer's commission interest until the product is delivered. If you fail to make all payments, you receive war bonds to the full amount paid in.

The American Marketing Association's program proposes a special type of war bond—"Victory Merchandise Bonds" or something similar—to be sold on a smaller interest basis than present war bonds. They would be redeemable serially after the war and as fast as consumer goods became available. At that time, purchasers would merely present bonds in lieu of cash. Holders would be assured serial priority in the purchase of articles.

Mr. Wick suggests a plan which takes into account the problem of immediate cash for dealers. Using the merchandise bond idea, he would set an arbitrary expense allotment of say 12 per cent, four per cent coming out of the down payment to go to the dealer immediately, four per cent on completion of the contract also for the dealer, and four per cent for the local administrative organization, embracing all dealers in a town and which might be called Post-War Sales, Inc.

The Office of Price Administration is unofficially reported as working on a similar plan, whereby the dealer would get a six per cent commission, four per cent out of the down payment and two per cent when payments had been completed. The money would go to the United States Treasury and, in compensation, the buyer would get a ten per cent discount—a $1,000 purchase certificate for $900.

Those are the outstanding plans and, in effect, they appear to cover every contingency. It does seem apparent, however, that each might borrow from the others to advantage. Furthermore, it would seem that an obvious mechanism for the execution of the plan has been overlooked—the great financing organizations, such as Commercial Investment Trust, Universal, General Motors Acceptance Corporation, the financing division of General Electric, etc. These organizations are all set up, eager for business, skilled in credit and geared to operate on as low an interest or discount basis as any in the field.

It probably would be wise for one plan to be operated on an industry-wide basis through the national trade associations, such as the Automobile Manufacturers Association, the National Electrical Manufacturers Association, etc., each of which might designate a finance company for the collection of funds and the payment of commissions.

The third important point is to assure immediate payment to dealers of a portion of their commission, so that salesmen may be kept employed and fixed overhead charges met. As a last resort, though it seems unnecessary, the Government might be called upon for deficit financing.

To succeed a layaway plan will require intensive, imaginative selling. But it is not impossible. Remember the American people were completely sold on television and nylon hosiery before either of these products ever appeared on the market. One objection advanced is the advertisers' difficulty in describing post-victory products. That does not seem to be insurmountable because the American people know that prewar cars, refrigerators, ranges and radios were good looking and efficient. They do not question that they will be better looking and more efficient in the future. The American advertising profession is the world's most capable. There is no reason why this problem should stump it.

In general, the plan must be highly practical, offer an incentive to the consumer, help strengthen the distribution structure and help finance the war. One stumbling block may be the Treasury Department, which so far has been reluctant to give its consent to one organization seeking approval for a layaway plan. But it does not seem likely that its opposition will continue if a generally fool-proof scheme is developed.

Don't Mistake Me for the Boss

A MANAGER'S realistic description of the free American system for the benefit of workers who are told "bosses are our natural enemies"

I AM GETTING tired of being called the boss of this business. When I hear that term I think of a friend of mine who bemoaned his lack of control over his children:

"One word from me, and they do as they please."

The first time I discovered I was not the boss of this business was when an old customer said that he was not going to reorder because he could get similar goods cheaper and better from a competitor. I learned again that I am not boss when I tried to float a stock issue and could not find enough investors to put the issue over.

I am aware that I have a number of bosses. I don't mean the Board of Directors, although they gave me my job and can take it away when they wish; nor am I thinking of the stockholders, although they vote the directors in and out of their posts.

My real bosses are the customers who buy our goods. They are your bosses too. The prices they pay and the quantities they buy determine how much I can pay you, myself and everybody else who works for and has an interest in the company.

What does a customer buy? He buys a product made of certain raw materials which anyone else can buy. To these raw materials we have added your skill as a worker, my ability as a manager, the money of our stockholders for tools and plant, and the efforts of our salesmen and dealers to get distribution.

Prices set by customers

EACH of those elements has a price. If we don't pay enough, we don't get the materials, you decline to work in this shop, investors pull out their money or refuse to supply more for our growth, and our dealers and salesmen take on something else. As for myself, I have to take a walk, too.

If we pay too much for any of these elements, our costs go up, and our customers buy from our competitors. Then the sheriff moves in and we all move out.

Who, then, *is* the boss? The answer is "We are all bosses some place along the line. Even our competitors are bosses in our business just as we are bosses in theirs. But the top boss is the customer."

Many efforts have been made to get around that top boss but with rare success.

I remember a boyhood ambition to own a toll bridge. What could be sweeter, I thought, than to sit at the end of a bridge and make people hand me 25 cents or turn around and go back home. Then one day I noticed that toll bridges had to do a lot of advertising. They had to persuade customers not to take ferries or drive a roundabout route. My favorite monopoly blew up. The customer seemed to be boss even in that heavenly business.

As I say, we have all thought of a monopoly at one time or another. I wish sometimes that this business had no competitors. Our dealers wish that we had no way of selling direct to our customers. Our banks, no doubt, wish that we had to finance ourselves through them exclusively or else—.

One of my friends with long experience in business says, "It is right that the customer should hold so much power. In that way he makes it necessary for us to compete, to improve, to reduce costs. Thus he gets better products, new ideas, improvements and refinements."

Your services as a worker must ultimately depend on some customer. If you are not willing to meet competition, both collectively and individually, then you will ultimately have to sell your services to a monopoly—the state.

Our American system is a chain of buyer-seller relationships. It is sometimes called the Free System. By that we mean bargaining, free from compulsion by either side, and competition free to all who have something to sell, whether goods or services.

It is important, therefore, that your wages and working conditions be arrived at by bargaining It is not bargaining when you threaten to close us up unless we accept your terms regardless of our costs, of the rights of the stockholders and of the handicaps you place on us in meeting competition.

There are other systems in other countries. You have heard a great deal about them recently. Eloquent voices tell you that the capitalistic system—the free system I have just described—is out of date and ought to be replaced by one more "modern." They offer more to the workers who are a majority and can have what they want.

Who has the final say?

I DON'T happen to like these other systems but that is no reason you should not. They may have something for you if not for me. But I do ask you, when you examine them, to put each one to the test of this question:

Who gets the power which our American system now leaves in the hands of the customer?

Will organized labor get it? Perhaps so, but it is the short end of the bet. Labor does the goose step in every one of those countries where the other systems prevail.

Will management get it? I feel ridiculous even to ask the question.

Will it remain in the hands of the customer? No, for the obvious reason that Nazism, Fascism and Communism start with the creation of a new class, an élite group of party managers to which relatively few are permitted to belong.

If enough of us keep asking and demanding an answer to that question, "Who gets the power?" I do not fear that we shall lose democracy in business and labor or democracy in government.

They are Siamese twins. You cannot cut them apart. Neither can thrive without the other. If one is weakened, the other is weakened. And if one dies, both succumb.

Democracy is the orderly rule of the people. Capitalism is the orderly rule of the customer.

In a democracy the people can have the sort of government they want. They can vote out the leader who betrays or fails them. In a capitalistic system the customers determine the kind of goods and services they want. Every day they vote for or against the products and services offered to them.

When business or political leaders, taking a foolish shortcut, offer in-

What does CAPITAL STOCK COMPANY INSURANCE Standard protection do for you?



"Well, there's one thing I've got to be thankful for . . . peace of mind about the folks. They're in good health—and well protected against any possible contingency that I can think of."

He couldn't have made a greater contribution to his peace of mind than when he had his agent review all his insurance needs and arrange . . . for his loved ones . . . the utmost possible security.

★

The concentration of our fighting men on the strategy of battle and the mighty production of the tools they need are alike aided by the safety research and the fire and accident prevention activities of capital stock company insurance. They typify the skill of a free people . . . nurtured by private enterprise . . . which produces a nation as great in war as in peace.

EVERY FIRE IS SABOTAGE TODAY!

THE NATIONAL BOARD OF FIRE UNDERWRITERS, 85 John St., New York • Est. 1866 • Nation-wide organization of 200 capital stock fire insurance companies

Radioman Standing Watch on Board Battleship • *U.S. Navy Official Photograph*





Will your company ANSWER THE CALL?

It's a call for volunteers . . . businessmen willing to share their typewriters with the U. S. Army and Navy

Uncle Sam has sent out an urgent call for typewriters needed *right now* . . . typewriters to help win the war.

These machines are required in camps, on the battlefront, on destroyers, on battleships to help carry on the essential services of our vastly expanding fighting forces.

Underwood Elliott Fisher is now producing weapons of war for the Army and Navy. Consequently, our government is looking to *you* to help supply the typewriters so vitally needed to speed the Nation's Victory.

The release of typewriters may take a little planning on your part, but in this way you will be making a real contribution to the all-out war effort.

WHERE TO SELL YOUR MACHINES

Telephone the nearest Underwood Elliott Fisher Branch. They will be glad to call and arrange all details to purchase Underwood typewriters seven years old or less which can be reconditioned. Payment will be made promptly by us in accordance with the prices set by the Government.

Underwood Elliott Fisher is the official buying agent for the United States Government and every typewriter so purchased will be for the Government's account.

Underwood Elliott Fisher

Helps Speed the Nation's Victory

Underwood Elliott Fisher Company

★ ★ ★ ★ *One Park Avenue, New York Nationwide Service* ★ ★ ★ ★

ferior goods at high prices, they pay the price of their deception when they try to make a second sale.

Competition is the food that nourishes both these twins. A recent writer has said:

> Genuine competition between capitalists for financial success, between workmen for advancement, and between parties for political advantage would solve most of the problems of democracy. When capitalists obtain special privileges, when trade unionists restrain ambition or restrict other men from working in their trades, and when politicians use public funds to keep themselves in power, both democracy and capitalism are on the way out. The politicians, not the capitalists, are in these days the outstanding enemies of democracy. The voters are offered intangible promises, often forgotten, while the capitalist must turn over to the consumers in return for their money something which they can taste, feel, handle and use—in some manner test and pass judgment upon. If they continue being swindled, it's no one's fault but their own.

Those who offer us a new system are usually impatient men. They seek the shortcut, the arbitrary way. The end always justifies the means, they say, and of course they talk of noble ends.

They are impatient at the slower processes of representative democracy.

Democracy or absolutism

NATIONS have enjoyed free governments or groaned under autocracies at least as far back as ancient Greece, some 2,300 years ago. The pages of history do not reveal as much freedom for all the people as the system we established in America 155 years ago.

Many times free people have sought to make themselves still freer by turning to systems "more responsive" than that of a republic. In every instance they have been cheated, disappointed, and deceived. The bitter lesson is that every other road leads toward absolutism.

Nearly 100 years ago, Karl Marx declared that capitalism had failed. We in America didn't believe it. We kept moving on to a point where 130,000,000 people in America enjoy a greater purchasing power than 500,000,000 in Europe. We consume more of the world's goods than a billion Asiatics.

Our twin systems—democracy and free enterprise—have carried us a long way—they promise even more for the future.

Remember that we are voters and we are customers. Management can prosper only as labor prospers. Management and labor can prosper only as much as our customers.

Keep asking those who believe differently, who advocate some other plan, "Who gets the power when the shouting is over?"

INDUSTRIAL EXECUTIVES!

THE SCRAP FROM YOUR PLANTS IS NEEDED AT ONCE TO KEEP WAR PRODUCTION MOVING!

YOU know that all our furnaces and mills must be kept working at top speed to win this war. Yet the steel industry, already producing record quantities, cannot attain its full, needed war-time capacity of 90,000,000 tons unless 6,000,000 additional tons of scrap steel is uncovered promptly.

This critical situation can be solved only by the patriotic cooperation of every American manufacturer.

In your plant, lying around in repair shops and storerooms, is the scrap America needs to give our boys the fighting tools they must have to win . . .

Broken castings, pipe, obsolete machinery, abandoned line shafting, pulleys, pumps, old boilers, storage tanks, beams, rails, fencing, track, chains, cable, rusty bolts, nuts, and rivets . . .

Round them up and get them moving to the front!

. . . Like the gas appliance manufacturer who searched his plant and found 90 tons of scrap metals . . . or the paper mill that "mined" 1,800 tons of steel from its plants . . . or the rubber company that asked its foremen to "stop holding things" and collected 1,608 tons of iron and steel from old molds and obsolete machinery in a single week!

What others have done, you can duplicate. Walk through your plant with "Scrap" in your mind—you'll be amazed at the harvest. But get it into the fight, *at once* . . . the war won't wait!

★ ★ ★

HERE'S WHAT TO DO... Appoint one man as Salvage Manager for your organization. Give him authority to *act*—to condemn old equipment, to move material, to collect scrap of all kinds. Have him separate all scrap by type. Then move it promptly through your regular scrap dealers. Don't wait — start rounding up scrap *now* — and keep your scrap moving until the war is won!

THROW YOUR SCRAP INTO THE FIGHT!

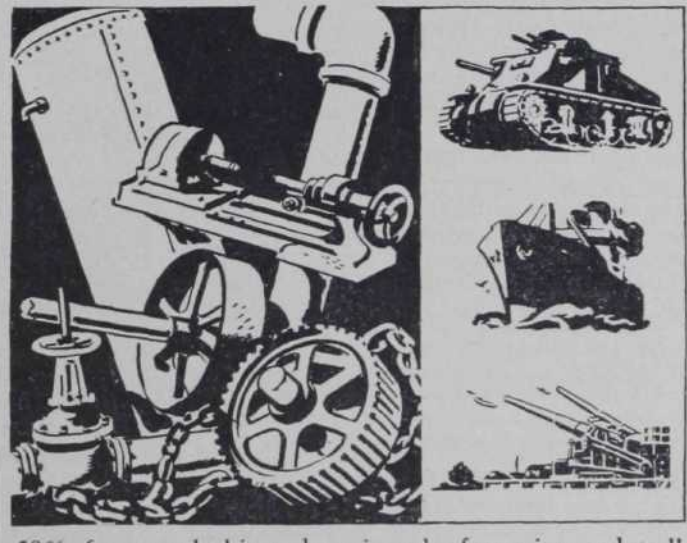


DONALD M. NELSON
says to all industry:

"The shortage of scrap materials for war production is acute. 6,000,000 extra tons of scrap iron and steel alone are needed this year, and vast quantities of rubber, copper, brass, tin, lead and zinc. Without your immediate, active cooperation — whether you have war work or not—we cannot lick this problem. We urge you to organize at once an all-out collection drive in your plants for these materials."

SCRAP NEEDED FOR WAR

SCRAP IRON AND STEEL



50% of every tank, ship, and gun is made of scrap iron and steel!

Other metals—Rubber—Rags—Manila rope—Burlap bags



Thousands of tons of these materials are needed to make bombs, tires for jeeps, surgical supplies for military hospitals, wiping rags for guns, insulation for electric wiring, parachute flares and sandbags.

This message approved by Conservation Division

WAR PRODUCTION BOARD

This advertisement paid for by the American Industries Salvage Committee (representing and with funds provided by groups of leading industrial concerns).

Red Ink Won't Make Munitions

(Continued from page 37)

Profit before taxes was a very satisfactory $559,676.79, but Fram was already beginning to feel the effects of a high war-time excess profits tax (72.4 per cent) imposed on an unfair normal income base period. It paid $324,362.55 —57.95 per cent—in taxes, leaving a net of $235,314.24.

Today, the company hasn't a dime in surplus to finance capital improvements. This isn't because its small group of stockholders has milked the company. Only $1,028 has been paid out in preferred dividends and $47,695 in common dividends since 1934. The remainder of the $393,431.38 realized after taxes over the years is represented in increased fixed assets, inventories and accounts receivable. The owners were content with this situation because they felt that they would begin to be repaid along about 1941 and 1942. Now, because of an entirely unforeseeable tax bill coupled with the accident of their birth date, they find that they can look for no return on their money and even face loss of their investment.

Expects to pay a fair share

FRAM expects and wants to pay a substantial excess profits tax. The corporation is on record as being willing to go so far as to manufacture for the Government at no profit provided the entire production is not converted to war purposes. President Peters says:

We've got to pay for the coming victory. We want to pay our share. And we have nothing to say about the amount of taxes taken from profit, provided such taxes are imposed in an equitable manner.

But, as the 1942 tax bill is now framed, Fram believes that its financial and credit position "can and probably will be adversely affected to the point where it will be forced either to liquidate or materially decrease its scope of operation."

Such an eventuality is unthinkable at Fram's.

Officials and employees, alike, do not believe that the Government, with one hand, would cripple a plant and, with the other, extend commendation on excellence in war work, as witness this telegram:

To the Employees of Fram Corporation:
With the bombs you make, American fliers are blasting the Axis. These bombs, praised by General Doolittle for the destruction they caused in Tokyo, now are shattering America's foes on many fronts. Your work as soldiers of production bolsters the performance of our fighting forces in our joint effort to smash both Nazis and Japs. You keep the bombs coming and the Army will blow Hitler and his stooges off the map.

PORTER, Major General,
Chief Chemical War Service.

Even with the 1942 tax bill threatening overwhelming disaster, Fram is "keeping the bombs coming." The old habit of trying to turn a crisis into an opportunity is still strong. Most of the men at the head of Fram were once the whole Fram organization. They know that even the birth of the company was the result of a crisis—in fact, two crises.

There was the crisis that confronted T. Edward Aldham and his partner, the late Frederick H. Franklin, chemists with a 20 x 20 shop on the top floor of a two-story wooden building in Providence.

They had acquired the patent rights to an old automobile filter, which rights they held to be of no great consequence until one day they hit upon a formula which transformed their acquisition into something that really filtered motor oil.

For a year or so, Franklin and Aldham —their corporation name joins the first two letters of Franklin's name, the last

★ ★ ★

Taxation Without Destruction

THE HOUSE TAX BILL'S threat to small war industries such as Fram is one of the dangers which the Chamber of Commerce of the United States seeks to eliminate in its tax program, submitted to the Senate finance committee in mid-August, just after the Fram article was written.

The Chamber's program is designed to produce $12,000,000,000 in new tax revenue for war purposes, without destruction of business, big or little. A summary of the proposals:

1. A corporate normal tax and war surtax of not more than 35 per cent, with appropriate adjustments for net incomes of less than $25,000.
2. Revision of the excess profits tax credits and relief provisions, to define more accurately true excess profits.
3. Rates to be imposed upon excess profits should depend upon the rest of the tax program—for example, upon the rate to be imposed upon normal profits, whether only true excess profits will be subjected to excess profits tax rates, and whether a workable incentive savings plan is enacted. The Chamber would impose the highest practicable rates upon excess profits, with the safeguard of preliminary brackets at moderate rates.
4. An incentive saving plan, consisting of suitable deductions from taxable income of both individuals and corporations for voluntary investment in government securities, non-interest bearing and non-negotiable during hostilities, but immediately negotiable and carrying a small return and early maturities with peace.
5. Avoidance of tremendous tax liabilities retroactively imposed upon individuals. Adoption of the Ruml plan for taxing individuals upon a current basis.
6. A retail sales tax, without exemptions (except for direct government purchases) at an effective rate of ten per cent, with appropriate adjustment for articles of first necessity.
7. A five per cent withholding tax, collected at the source, on all compensation, dividends and interest paid to individuals.
8. A moderate rate of tax on capital gains—no greater than present rate—and a shorter holding period. Maintain basic provisions of the present law, except for a few minor changes.
9. Adoption of adequate provisions for recognition of foreign war losses.
10. Repeal the provision for renegotiation of war contracts contained in Section 403 of the Act of April 28, 1942.

★ ★ ★

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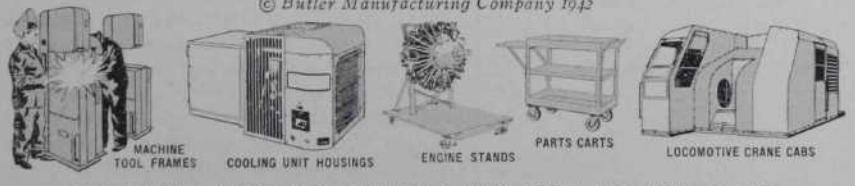
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American war birds are taking wing—flight after flight—in swarms they are heading to destinations at every point of the compass. Ahead of them are going air warports—the kind that only American ingenuity can quickly engineer, then as quickly produce. These airports are complete to afford most every facility and are designed for compact shipment and speedy installation. This also means that they are readily dismantled and reinstalled. Butler engineers and craftsmen with war-sharpened skill and augmented factory facilities are making, for today's wings of Victory, complete warports which will excel as the peace ports of tomorrow.

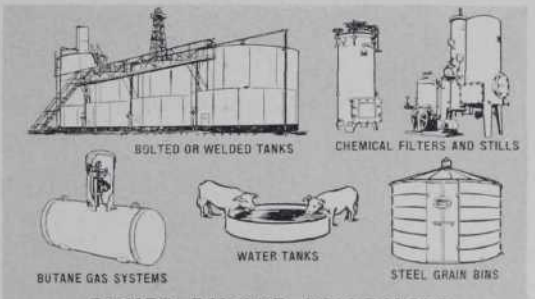
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two of Aldham's—manufactured the Fram filter. That was all. They manufactured it. They couldn't sell it.

By 1934, the company had reached a real crisis. If their filters couldn't be sold, they would have to stop manufacturing them.

In that year Steven B. Wilson was traveling about the country trying to sell the product of the Fleming Tool Company of Worcester, Mass. Wilson, a full-blooded, friendly man from the campus of the University of Michigan, was not a born salesman of precision tools. James E. Bigwood, back in Worcester running the tool plant, could tell from Wilson's letters that Fleming Tool was going to need red ink in balancing its books for 1934—as usual.

A merger helps both

THEN, one day, Wilson called on a jobber in Boston. Having sold no precision tools, he was preparing to leave when the jobber remarked that a man had just been in trying to place orders for a gadget which he claimed would filter automobile oil.

Wilson heard Opportunity's knock. "Come in," he said, or, rather, "How can I meet the men who make this filter?"

The jobber got in touch with Fram's lone salesman. He arranged a meeting in Providence. Wilson, Franklin and Aldham met for the first time in the 20 x 20 laboratory. They had plenty of room to fill orders, Franklin and Aldham said, because they had no orders.

Wilson listened to their story.

"Put one of your filters on my car," he said, "and maybe you'll hear from me later."

It wasn't a sale, but it was something to do, so Franklin and Aldham installed a Fram filter on Wilson's car.

He drove away. After traveling 6,000 miles he returned to the wooden shack in the Little Italy section of Providence.

"You've got a good oil filter," he said. "I'll come in with you."

Thus, two failures, as businesses are rated, were combined. The Fram name was retained. Instead of one bottle, the new firm had two bottles of red ink. But it had a combination that was right—a man who could sell filters and two men who knew how to make them.

A friend of Wilson's in New York offered limited financial help for 90 days. The firm stretched the money over a longer period. Meantime, Wilson was trying to see the proper officials at Studebaker. He was turned away again and again.

Finally, he got in. Before he left, Studebaker had agreed to test Fram filters on its proving ground. The test led to a contract. Studebaker would equip its President model cars with Frams.

By that time the filters were being manufactured at the old Fleming Tool plant in Worcester, although the cartridges, containing the magic filtering formula, were still made in the laboratory in Providence.

Before the first orders were shipped to Studebaker, Wilson was haunting the outer offices of the Firestone Tire & Rubber Company in Akron. They agreed to stock Fram filters in their retail establishments in Boston, Worcester and Springfield.

Problems in production

INCREASED sales meant increased production problems. Painting the exterior of the filter shell was one of them. In the early days a brush was used but the bristles left marks.

"It wasn't a satisfactory job from the standpoint of appearance, and besides it was too slow."

"Finally," Bigwood remembers, "we got hold of a small compressor, which handled less than a half-pint of paint. The filter shells were suspended by wires, and the painter had to walk around the shell to complete the job.

"Soon, as orders increased, we had two men trying to keep up with the painting. One turned the wire that held the shell while the other sprayed paint. Even then, they couldn't keep up with production. Something had to be done.

"I remembered an old phonograph I had used at a lake camp and later had given to my niece. She lived in Athol, 45 miles from Worcester. I drove up there wondering if she would give it up. She would. So I put it in my car and started for Worcester.

" 'How about the records—you forgot them,' she called after me, and I yelled back, 'I'm not going to play records on it, I'm going to play filters.' "

Back in Worcester, the plant superintendent fitted up a small tin form on top the phonograph turntable. Bigwood slid a filter shell over the form. Then he wound the phonograph and pulled a lever.

The turntable revolved and so did the filter shell. Bigwood aimed a paint spray gun and released the trigger. The paint sprayed the shell quickly and evenly. A professional job. And within the company's budget.

After that, one man could paint three times as many filters in a day as two men formerly could.

The phonograph painting machine became something of a symbol around the Fram plant after that. It heartened officials and employees, alike, when new problems bobbed up.

"There was a way to do almost anything if you just used the phonograph painting machine plan of adapting what you had, or could get, to the need."

The phonograph turntable was continued in the paint department until July 1, 1937, when the Fram laboratory at Providence and the plant at Worcester were brought under one roof in a more spacious building in East Providence, present site of one of the four Fram units. The other three are at Pawtucket, R. I., and Ann Arbor and Otsego, Mich.

Meantime, in the fall of 1936, Studebaker made Fram filters standard equipment on Commander models, as well as Presidents, and, in February, 1937, the first shipment of filters had gone to Ford as standard equipment on

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New Treasury Ruling Permits Purchases UP TO $100,000, in any Calendar Year, of Series F and G WAR BONDS!



The Treasury's decision to increase the limitations on the F and G Bonds resulted from numerous requests by purchasers who asked the opportunity to put more money into the war program.

This is not a new Bond issue and not a new series of War Bonds. Thousands of individuals, corporations, labor unions, and other organizations have this year already purchased $50,000 of Series F and G Bonds, the old limit. Under the new regulations, however, these Bond holders will be permitted to make additional purchases of $50,000 in the remaining months of the year. The new limitation on holdings of $100,000 in any one calendar year in either Series F or G, or in both series combined, is on the cost price, not on the maturity value.

Series F and G Bonds are intended primarily for larger investors and may be registered in the names of fiduciaries, corporations, labor unions and other groups, as well as in the names of individuals.

The Series F Bond is a 12-year appreciation Bond, issued on a discount basis at 74 percent of maturity value. If held to maturity, 12 years from the date of issue, the Bond draws interest equivalent to 2.53 percent a year; computed on the purchase price, compounded semiannually.

The Series G Bond is a 12-year current income Bond issued at par, and draws interest of 2.5 percent a year, paid semiannually by Treasury check.

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Lincoln Zephyrs. In 1939 they became optional equipment on V-8's.

The building leased in East Providence was the former Davis-Jones plant which produced bombs in the First World War. The first day Fram occupied it the order department equipment was a typewriter and a packing box. But the orders came in just the same.

Financial problems growing

JUST before Fram moved to East Providence, Wilson foresaw that the rapid growth of the organization would mean financial problems and—taxes. In fact, there were financial problems then, serious ones, as the company had been losing money because of Wilson's belief that earnings should be plowed back into the business.

The company must either have money or do better with the money then coming in. As for taxes, Wilson went to see a Washington tax consultant named Harry T. Peters. He has been with Fram ever since, succeeding to the presidency when Wilson, a captain of infantry in the First World War, joined the Army.

"He began raising hell with everybody from the Secretary of the Navy down in his effort to get back into uniform after Pearl Harbor," Peters says. "They finally took him and made him a major."

Fram made him chairman of the board.

Wilson, Peters and Bigwood, who went to East Providence from Worcester to become treasurer of Fram, decided, in 1937, to see Frank Ryan at the National Bank of Commerce & Trust Company in Providence about the company's financial situation.

"He didn't know us," Peters said, "but he advanced the company $25,000 to buy the building it had leased."

The next big problem was shipping. Wilson, who had spent four years at Ann Arbor as a student, returned to the old college town and obtained a small, wooden building where the filters could be made nearer the automobile plants. The first filter was turned out there Feb. 23, 1939. In December, 1940, the transportation problem was further alleviated by the opening of another plant at Otsego, Mich. The Pawtucket, R. I., plant was opened last December.

Faced, in the House tax bill, with the latest and gravest crisis of its history, Fram—the men who made it—has considered the usual steps that might be taken to find a way out. These are three:

1. Fram could float a new stock issue.
2. It could borrow more from banks.
3. It could borrow from the Government.

Peters feels that it is self-evident that the securities market is not now in a state to encourage new flotations and that, even if it were, the fact that taxes are lapping up Fram profits would make the stock unattractive. As for borrowing from the banks, Peters asks why a successful concern, already under obligations to bankers, should have to get in still deeper. That just wouldn't make sense.

As for borrowing from the Government, Peters, like many another business man, feels that Washington already has a tight enough stranglehold on industry. If, because of high taxes, the loan could not be repaid, Government could take over like any other creditor. What then?

Income figured on sales

WITH ORDINARY financial channels either closed or impractical, Peters feels that help can come now only from Congress. That help, in his opinion, could be given by inserting in the current tax bill a simple amendment that, he says, would give a fair shake to Fram and the many other new companies that are in the same fix.

The amendment would provide for computation of normal income based on a definite percentage of sales. Anything earned in excess of this would be considered to be excess profits and taxable as such.

If, however, Congress insists on the computation of normal income based on several years' operations, Peters would suggest an amendment which would provide that the normal income base period for computing the excess profits tax include the year ending Dec. 7, 1941, when the United States actually entered the war. That's all, he says, that would have to be done. He would not quarrel with the method of arriving at the base figure or the size of the tax as long as both are applied impartially to all industry.

For Fram this amendment would mean that, lacking the few days between Dec. 7 and the end of the year, its base would take into account its 1941 earnings before taxes—$559,676.79—instead of considering, as now provided in the House bill, the 1936-39 period when Fram was showing little or no profit.

Sure, Mr. Peters says, this amendment would be a break for Fram. But he makes this final point:

Although the company showed a fine gain in business in 1941, its volume passing $4,100,000, it did only $322,578.58 in either direct or indirect war business. Thus, under his proposed amendment, including 1941 in the base period, Fram would be taxed in line with the theory of the excess profits tax—to skim off heavy war profits. Fram did not move into large-scale war production until this year.

Peters also advocates a plan similar to Britain's which provides for refunding 20 per cent of that country's 100 per cent excess profits tax to firms after the war. He feels that, even if Fram survives the war, it may well not survive the peace without an immediate transfusion of cash.

Many other companies, he believes, will be in the same boat. Specifically he proposes—

That 20 per cent of all corporate income taxes, war surtaxes and excess profits taxes be returned to corporations in the form of Government bonds carrying no interest and non-negotiable until the peace. Then they would become negotiable carrying two per cent interest and repayable by the Government, one-fifth each year.

Economic Warfare, Old Style

WHEN THE English and Dutch were fighting Philip II in the 16th Century they devoted a good bit of their naval effort to hi-jacking the Spanish king's silver-laden treasure ships as they crossed the Atlantic from the new world. They knew that Philip's turbulent German mercenaries set high store by their pay and were given to revolt if it was overdue.

Today we call that sort of activity "economic warfare"—an unglamourous title which masks a phase of conflict which has strategies as complicated and tactics as daring in their way as those of the actual battlefield.

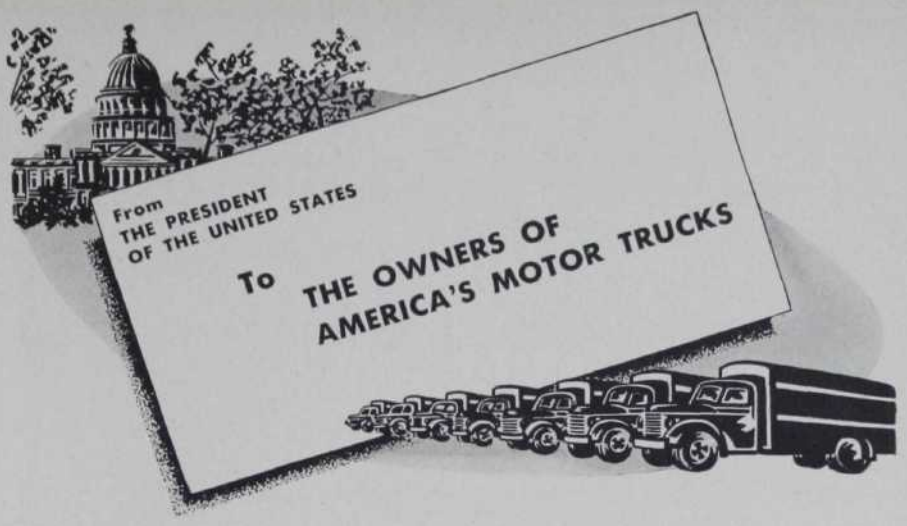
Economic war has no fixed battle lines or definite geographical limits. It is a kind of guerrilla struggle made up of a thousand unspectacular skirmishes in a thousand fluid fronts. It is a special kind of business man's war against a special kind of business man's enemy.

Just as the Dutch merchants of 300 years ago hired out their vessels to carry for Philip, demanding and getting pay at top prices—which they promptly turned into the Amsterdam exchange, thus bolstering the Dutch exchequer and weakening Philip's economic position, so today business men are taking the aggressive in economic war.

Seeking raw materials

THE routine weapons in this phase of the conflict are blockade and blacklist, implemented by rigid export and import licensing systems; commodity deals and exchange control; credits, loans, priorities. Its immediate objectives are to find and get possession of stocks of vital raw materials whereever they may be, and allocate them wherever they are needed among our essential industries, our allies and our friends—keeping them out of the hands of our enemies at any cost by "preclusive buying" or otherwise; and to assemble and organize economic data needed by our armed services to immobilize the enemy industrially. Its ultimate goal is the strangulation of Axis economy.

The shock troops of this war-within-war are drawn from the rank and file of every-day peace-time commerce —keen, ready, resourceful traders who know sources of supply, how to get delivery by the most direct route, how to make and use human contacts, how to buy and sell goods. They are men bred to the realities of commerce and



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These things mean that it has become the patriotic duty of every truck operator in America to help in every possible way to make his truck and tires last longer."

These paragraphs were written by Franklin D. Roosevelt and addressed to the owners of America's motor trucks. They underline the importance of the preventive maintenance programs launched by the Office of Defense Transportation.

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Today, as always, the ideal of Cities Service remains the same. *Service to the Nation!*



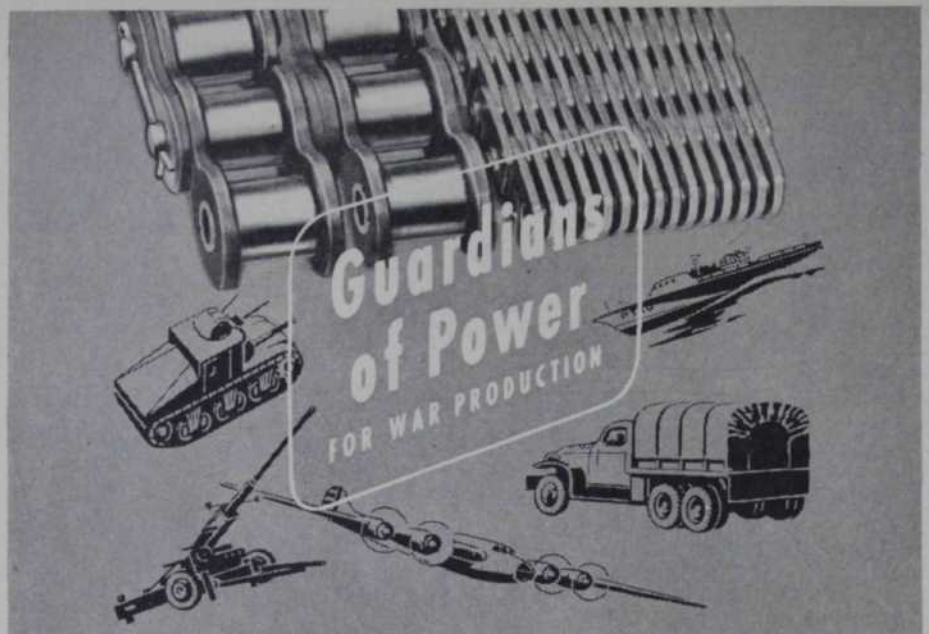
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If the restaurant man knew who recommended his table, he would want to thank him personally. And Nation's Business would like to thank personally the old customers who recommend our editorial menu to their friends.

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trained in the school of beating your competition to the punch—typical products of our system of free enterprise.

Men of this type and background were getting results in this field long before the Board of Economic Warfare came into being. Representatives of the Federal Loan Agency and the State Department, working closely together, had already preempted Latin America's total output of strategic materials, except for Argentina; and on more than one occasion since, notably the Brazilian rubber deal, the steadying hand of practical business men in these established agencies has retrieved a critical situation growing out of the doctrinaire approach of academic theorists.

Axis prepared for war

ALTHOUGH each succeeding century, each new war, has seen economic warfare broadened and its technique refined, it remained for the totalitarian states to develop it into an exact science. Barter and bilateral trade agreements, "Aski" marks, export and exchange control, are economic preparations for war. To the same category belong the monetary flim-flam games and commercial highbinding by which Chinese and occidental business men have been victimized in Jap dominated areas in the Orient. Throughout the '30's Germany and Japan were accumulating huge stock piles of vital materials, gearing their industrial machines for a split-second change-over to all-out war production. Having streamlined their own economy the Nazis were equally diligent in throwing monkey wrenches into the economies of their potential enemies. Weaker states like Roumania and Bulgaria were forced into the German orbit by various kinds of economic blackmail; stronger nations were weakened through cartels.

In the economic as in other phases of the war, the Axis powers have shown their hand and done their worst. The free people of the world have gone to school to them, and now are turning their own weapons against them.

Methodically, relentlessly, their world-wide offensive goes forward, widening its sweep and recruiting its strength from day to day. Tricked, cheated and robbed by faithless and cynical Fascist bureaucracies, they know what they are fighting for—and against. There is a grim appropriateness in the circumstance that the hand that weaves the noose, which sooner or later will tighten about the collective necks of the totalitarian tyrannies, is the hand of their principal victim—the business man.

—GARNETT THORPE

Does The Army Need You?

(Continued from page 48)

Third Class	2,300 to 2,900
Fourth Class	2,000 to 2,600
Fifth Class	1,800 to 2,160

Does signing an application commit you to accepting any appointment offered?

No. A commission may be accepted or refused at the time it is offered formally.

After acceptance by the applicant, however, service can be terminated only by resignation, providing the Director General of the Army Specialist Corps accepts it.

Will members of the Corps be eligible for promotion and decoration?

Yes, promotions may be made in the Corps, and Corps members may be rewarded and decorated for meritorious service in accordance with the practice of the War Department.

Will political influence help?

All political or personal considerations will be rigidly excluded, and care will be exercised to insure the appointment of men who are fully qualified and specifically needed.

Will members wear uniforms?

They will wear the regular Army uniform, but with their own distinctive insignia.

Members of the Corps will provide uniforms at their own expense.

To what disciplinary action are members of the Corps subject?

They are subject to the same discipline as regular Army men in the arm or service to which they are attached.

Do members have any legal guarantee that they can go back to their jobs in private life after the war?

No such legal guarantee exists, except for those who come to the Specialist Corps from government positions carrying Civil Service status.

Many companies, however, are according the same privileges to their employees who accept Army Specialist Corps appointments as they do to those accepting commission in the Army of the United States.

What age limits are imposed by the Specialist Corps?

No hard and fast limits have been established, but the Corps is concentrating on the age group from 35 to 60. In categories where skilled men are scarce, younger men will be appointed.



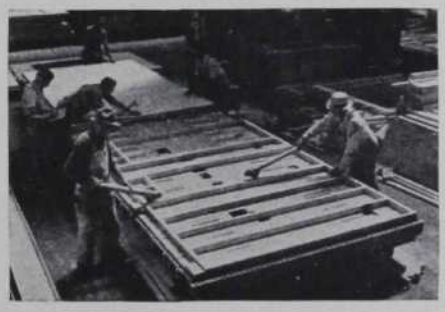
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eight days ahead of schedule

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But on August 4th, Barrett & Hilp, Contractors of San Francisco—who are building the Portsmouth project—drove in the last nail on their 4000th house—a full *8 days ahead of schedule!*

The Homasote Homes at Portsmouth are vitally important to the war effort. Housing is needed for the shipbuilders at the Navy Yard—and needed fast.



The scope and speed of the Portsmouth project are made possible by Homasote Precision-Built Construction—an engineering system of prefabricating machine-perfect, doubly-insulated homes—demountable, if desired. Homasote Homes are *not* stock houses. They may be of *any size* and *any design* to fit any housing problem. They may be built in any quantity from one to 5,000 up. Seven years' experience is back of today's record performances.

When the present emergency is over, prefabricating plants throughout the country will supply Homasote Homes for employee housing, slum clearance, large-scale realty developments and many similar projects. Write for complete information. HOMASOTE COMPANY, Trenton, N. J.

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You're thinking, "Boy! What a guy!"

You're wishing that *you* were the strongest man in the world.

You're planning, after the 8:17 carries the strong man off to his next one-night stand, to go home and rig up a gym in the garage and exercise like anything.

Right? We thought so!

But suppose, Johnny, we told you that you *are* the strongest man in the world—or at least that you'll be when you grow up. Would you be surprised?

You needn't be. For it's true!

Now don't get us wrong. We're not promising you the bulging biceps of the muscle-bound fakir who owns that luggage. We're just pointing out that right today, millions of people like your dad, and Joe's big brother, and the man who lives on the corner—all of them are doing jobs that call for a thousand times the strength of the strong man's best act. Jobs that a whole race of Paul Bunyans couldn't swing by brute muscle alone—but which are easy with the powerful machines of industry.

How does this affect you, Johnny?

In lots of ways. First, it's made possible the world you're enjoying so much today—your toys, the comforts you have, even many of the necessities that you take for granted.

And then, it's going to go a long way toward winning the war which, fortunately, you don't understand, but which stirs your imagination with P-40's, and M-4's, and jeeps and PT boats.

But what about you and the strongest man in the world?

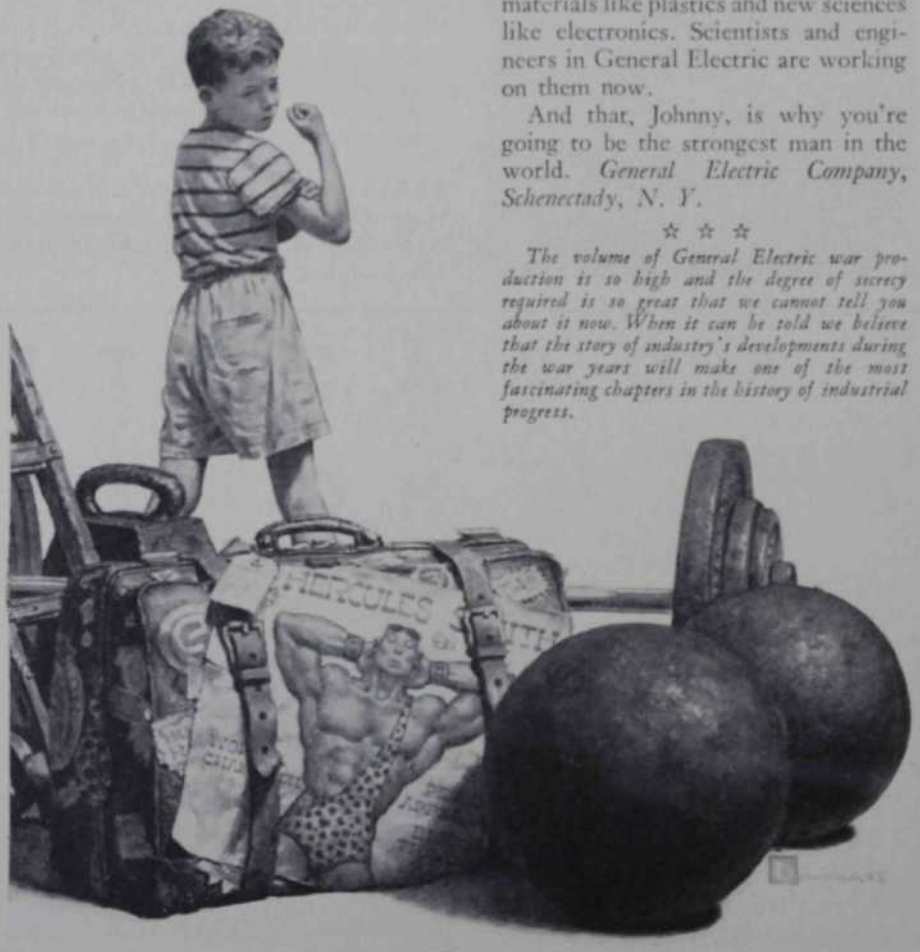
That's for tomorrow—when there will be big jobs to do. Jobs rebuilding a war-torn world, and building it safer and finer than anything we have known. Jobs that will call for even more power and ingenuity and skill.

And you, Johnny—you'll do them! You'll have greater power and better tools to help you. You'll have new materials like plastics and new sciences like electronics. Scientists and engineers in General Electric are working on them now.

And that, Johnny, is why you're going to be the strongest man in the world. *General Electric Company, Schenectady, N. Y.*

☆ ☆ ☆

The volume of General Electric war production is so high and the degree of secrecy required is so great that we cannot tell you about it now. When it can be told we believe that the story of industry's developments during the war years will make one of the most fascinating chapters in the history of industrial progress.



GENERAL ELECTRIC

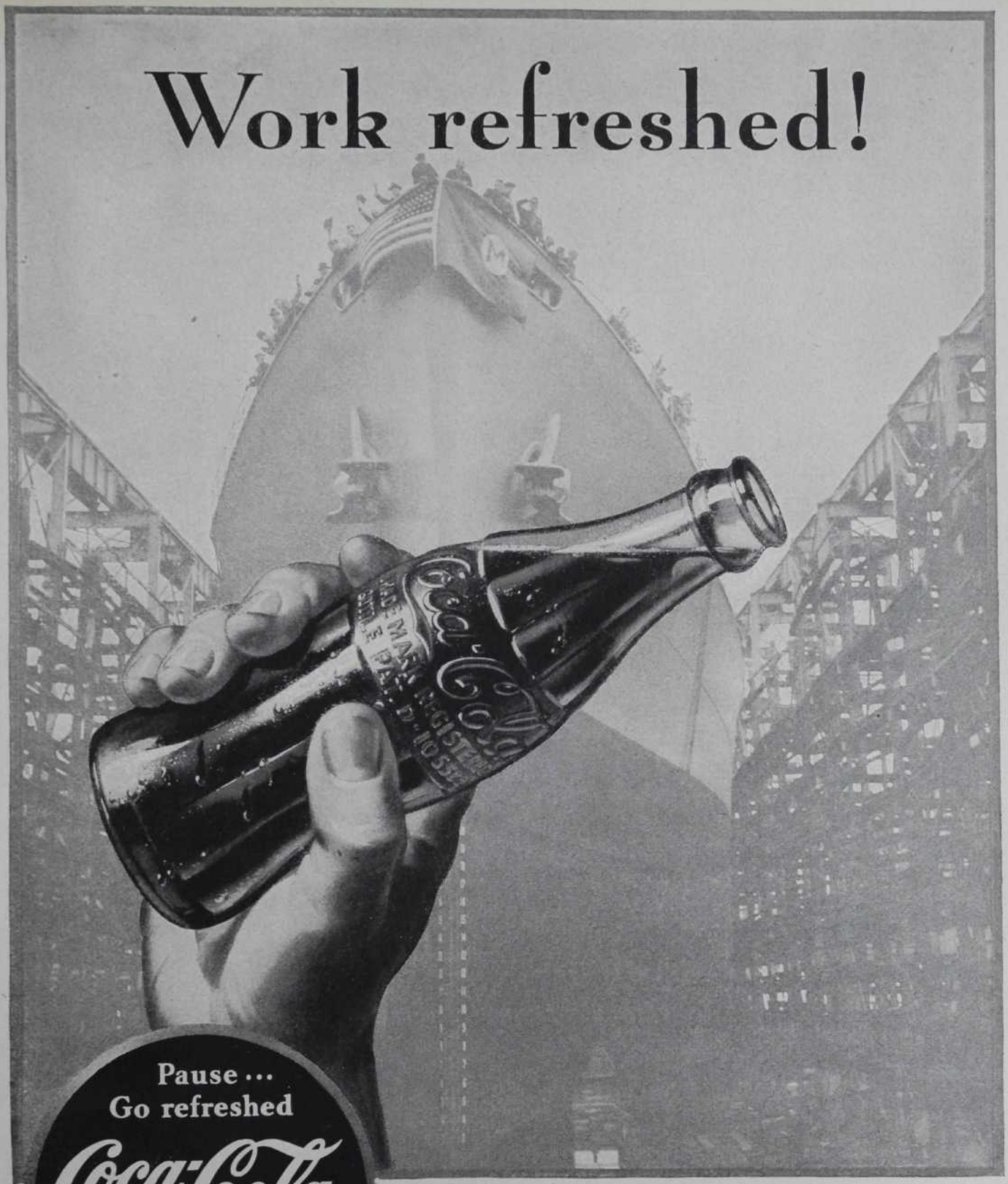
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Work refreshed!



Pause ... Go refreshed

Coca-Cola

TRADE-MARK REG. U. S. PAT. OFF.

5¢

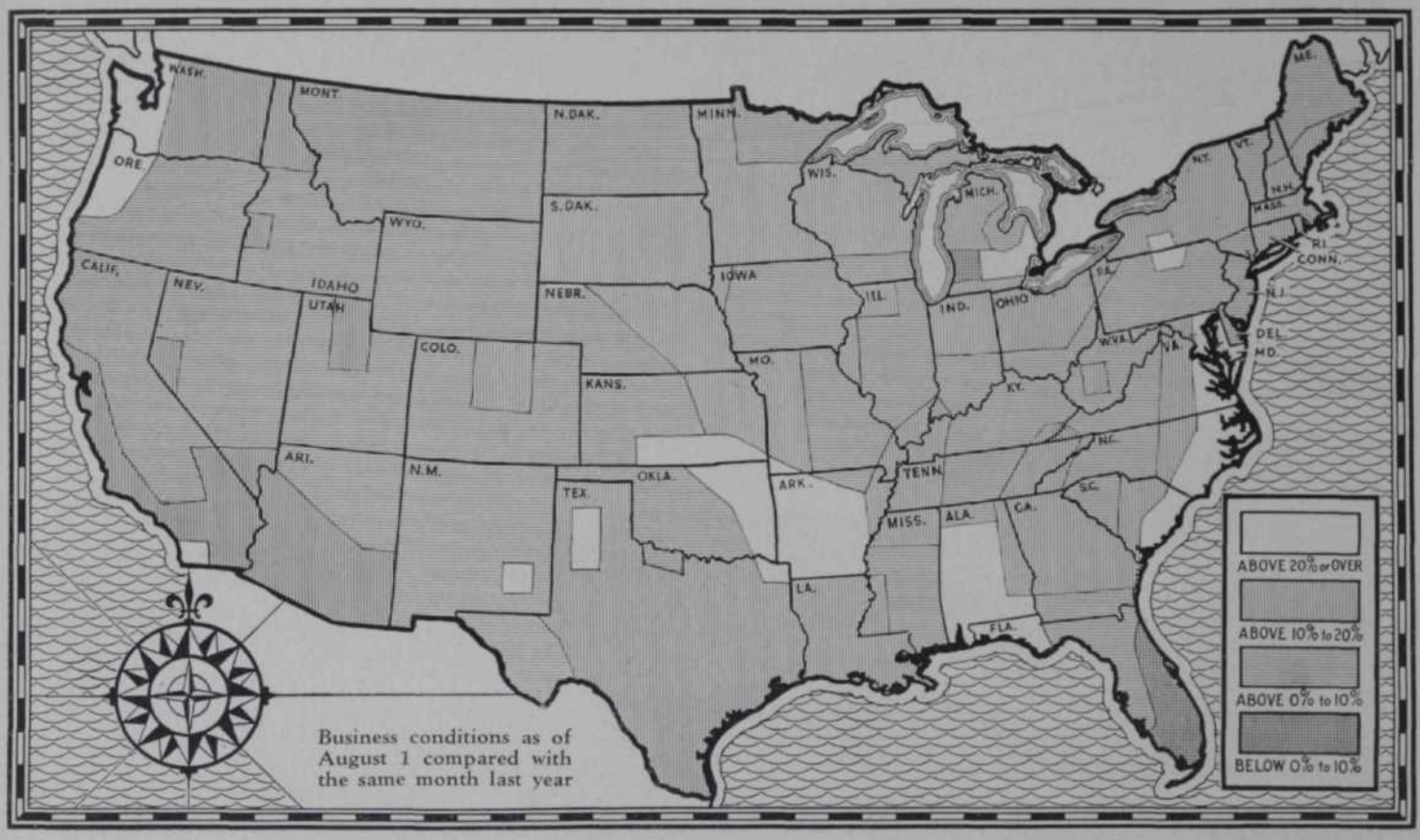
The pause that refreshes with ice-cold Coca-Cola is a pleasant way for workers to turn to refreshment without turning from work. It's a refreshing minute that helps on any job.

You trust its quality

COPYRIGHT 1942, THE COCA-COLA COMPANY

The MAP of the Nation's Business

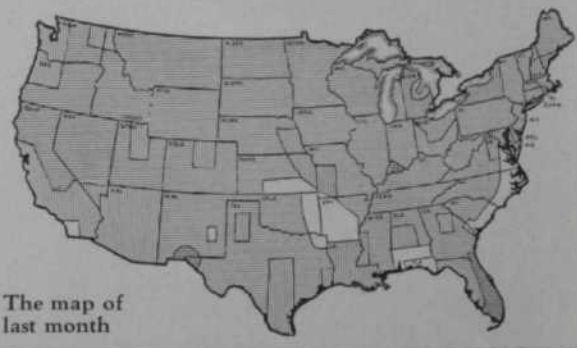
By FRANK GREENE



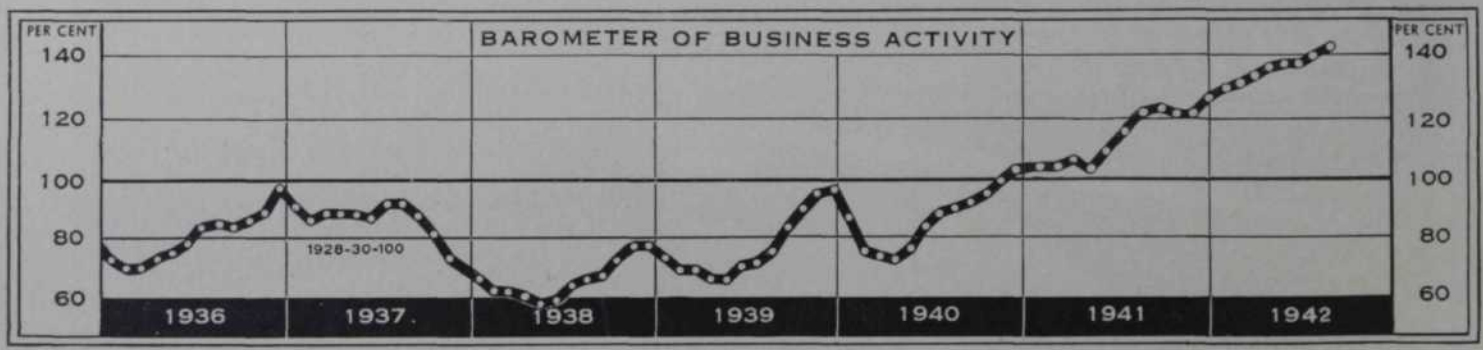
INDUSTRIAL production maintained an active pace through July in spite of raw material shortages in some instances. Steel output dropped slightly due to lack of scrap and much needed repairs. Heavy troop movements and freight carloadings, equal to June, held railroad revenues at high levels; electricity output made all-time peaks. Construction, confined largely to war-related public works, ran even with last month. Rationing restrictions held down crude oil output while coal production was stimulated by Government request.

Stock market prices gained slightly with increased trading despite unfavorable war news. Farm labor shortages became acute; farm product prices, up 35 per cent from last July, touched 16-year peaks, with crop and livestock prospects the best in years. Wholesale markets were inactive but retail sales and collections improved, particularly in industrial centers.

A brighter Map results from effects of rising war industry coupled with excellent crop prospects and higher agricultural prices



The map of last month



Industrial activity and employment continued to move forward in July, reflecting the substantial progress being made in meeting requirements for the all-out war program, in spite of shortages of certain critical materials



NASH-BUILT ENGINES WILL BLAZE A ROAD TO VICTORY

In the new battle-field of the sky—where war was never waged before—it's a freezing 50° below zero, and air is so thin ordinary engines starve and die.

Yet into these shuddering heights a plane is lifting—soaring up like a rocket. Through his oxygen mask the pilot is confidently smiling—and the roar of the engine never falters.

It's the U. S. Navy's *Corsair*—a ship designed to outclimb, overtake and outfight any known Nazi or Jap in the sky!

Its secret—a mighty 2,000 horsepower engine, super-charged for high-altitude combat—an engine that will be built *in quantity* by the men of Nash and Kelvinator.

Look again in the far-flung reaches of the sky—

Soon there will be fleets of great, four-engine flying boats carrying the Navy's men and cargo. They will come from Nash-Kelvinator.

Look farther—thousands of planes are already flying to battle fronts on propellers from Nash-Kelvinator.

This is our job—and we are *in it to win*—with all the skill we can muster.

And when that great day finally comes—when the last Nazi swastika is shot out of the sky—then you will find that from the crucible of war we have brought new skill into building the automobiles and refrigerators for America at peace.

NASH-KELVINATOR CORPORATION

NASH KELVINATOR

PRATT & WHITNEY DOUBLE-WASP HIGH-ALTITUDE ENGINES

NAVY'S GIANT VOUGHT-SIKORSKY FLYING BOATS

HAMILTON STANDARD CONSTANT SPEED PROPELLERS

Take it from the "Queen of the Air"

ANTOINETTE CONCELLO

YOU WANT STEADY NERVES

TO BE A TOP-FLIGHT AERIALIST

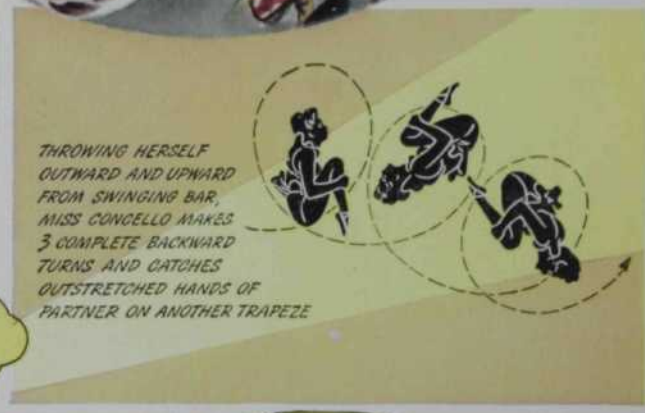
● You may not go in for trapeze acrobatics. Even the thought of someone in danger may upset you, but there's a sound tip for any smoker in the fact that among men and women whose jobs demand steady nerves, it's Camels for the mildness that counts. Antoinette Concello (*right*) says: "Camel is one cigarette I really enjoy because of their finer flavor, also because they're extra mild."



R. J. Reynolds Tobacco Company, Winston-Salem, North Carolina













IMPORTANT TO STEADY SMOKERS:

The smoke of slow-burning

CAMELS

contains **LESS NICOTINE**

than that of the 4 other largest-selling brands tested... *less than any of them*... according to independent scientific tests of *the smoke itself!*





"Queen of the Air" Ringling Bros. and Barnum & Bailey circus